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No. 2251.

MARCH 17, 1923.

Vol. XCVIII.

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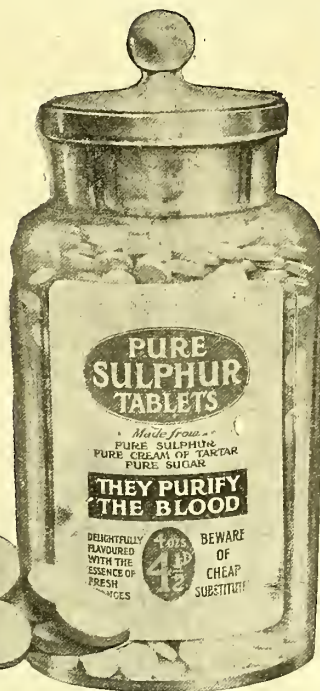
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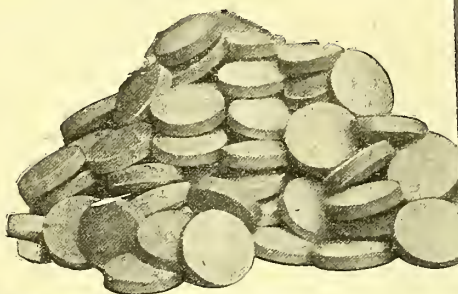
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Per 4/- doz.

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Carriage paid on all orders for £2;

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Manufacturing Chemists
BRIGHTON ENGLAND



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THERE is money and an exceptionally quick turnover for the Chemist who is foresighted enough to stock a good and representative range of "Luton" Straw Hat Dyes.

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to **1/3** small size **3/-** large size

- ☪ On February 19th Peps were reduced to the old retail price and the reduction was advertised in all the leading newspapers, magazines, etc.
- ☪ A special circular has been posted to every chemist and druggist, but if by any chance you have not received yours, please send a postcard.
- ☪ The wholesale prices are 12/6 per doz. small size, 26/6 per doz. large size, less the usual Window Show Allowance of 5% on assorted orders.
- ☪ All existing stocks of Peps (2/- and 5/- sizes) returned to us, or to any wholesaler, will be credited. New stocks now ready, and orders will be dispatched in order of priority.

C. E. FULFORD, Ltd., LEEDS

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IMPORTANT NOTICE !On and after May 1st, 1923, the **RETAIL PRICE** of**NADCO
DYES**will be **REDUCED** from 1/- to 9d. per packet*The following REDUCED TRADE TERMS
to retailers come into operation AT ONCE :***9/-** per Dozen, less 25%.**Gross Quantities ... 25% and 5%.**

If you have not already obtained one, send your order NOW for a COUNTER DISPLAY CASE containing a gross assortment of Nadco Dyes in 20 beautiful fast colours. COLOUR DISPLAY CARD supplied free. Your wholesaler can supply Nadco Dyes in the Display Case without extra charge. Insist upon having your first order packed in this way. Order from your wholesaler or—

THE BRITISH HAROLD F. RITCHIE & CO., LTD.**33 Farringdon Road, London, E.C.1.****P.A.T.A.**

Suttley & Silverlock, Ld. (Toilet Roll)	36
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JOHN THOMPSON (WHOLESALE DRUGGISTS, 1921), Ltd.
DUKE STREET, Liverpool.

"CORNOL"

Regd.

(Formerly known as Thompson & Capper's Corn Remover)

CURES CORNS WITHOUT PAIN

Such really wonderful success has attended our Corn Remover that we have registered a name and a design for it, so that henceforth it will be known as "Cornol," and every package will have a label on which is reproduced the famous statue here shown.



The package itself is the last word in artistic production and immediately arrests attention.

"Cornol" is far and away the finest packed corn preparation ever produced.

So convinced are we that every chemist who sees "Cornol" will be willing to take it up that we offer to send one **1/3 bottle free of charge** on receipt of business post-card or letter (please mark it Dept. C).

Minimum Retail Price

1/3
Per Bottle.

Wholesale Price
1 1/6
Per Dozen.

With the first order for 6 dozen we will also send **FREE OF CHARGE** a model of this famous Statue.

This is in addition to the 9 Bonus mentioned below.



SPECIAL TERMS FOR WINDOW DISPLAY

With an order for 6 dozen "Cornol" we will send 9 bottles **FREE** and a Special Illustrated Talking Card that will sell the Stock in a very short time.

TRIAL ORDER.—We will accept, for a time, opening or trial orders of 2 dozen "Cornol" and give 3 bottles **FREE** as bonus, also the Illustrated Talking Card.

A SPECIAL DISCOUNT OF 5% IS GIVEN FOR CASH WITHIN ONE MONTH.

Sole Makers:

THOMPSON & CAPPER, LTD.
Manesty Buildings, College Lane, LIVERPOOL



Pepsin, 2500 (B.P.), 3000 (U.S.P.) & 5000
Test. Soluble and Insoluble.

Pancreatin, U.S.P.

Diastase. Amylopsin.

Trypsin, etc. etc.

Headquarters for Endocrines,

Packed and in Bulk.

Thyroid, B.P. and U.S.P. Parathyroid.

Pituitary, Powder, Capsules and Tablets.

Pituitary Liq. (Standardized) in Ampoules $\frac{1}{2}$ and
1 c.c. Boxes of 6.

Suprarenalin, Natural Product, Standardized, etc. etc.

Write for Price List.

Quotations given for Bulk Quantities.

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LIMITED

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LONDON.



Pharmaceutical & Photographic Products

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Acetanilide (Crystals and Powder)

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It is the only journal published in this country devoted entirely to window display, and, being the official organ of the British Association of Display Men, it has at its command the very best matter concerning this important subject. A special feature is always made of Chemists' displays. It is printed on the best art paper, which allows perfect reproduction of many illustrations of successful window displays from all parts.

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AYLESBURY, BUCKS

GENUINE GILLETTE BLADES

Direct from the Gillette Company's new factory in Montreal.

BEWARE of Blades imported from the Continent as recently these have been found in numerous cases to be mixed with German imitations.

1 box of 10 doz. ..27/6 per box

5 boxes of 10 doz..27/1 " "

10 " " " ..26/8 " "

All guaranteed new, clean and perfect,
NOT mixed or war-time products.

VALET
21/- AUTO STROP 6/6
SAFETY RAZORS each.
with 3 blades and in stout hide case

COMBS. Rake, half-rake, pocket, all shapes and sizes ... from 2/6 doz.

TOILET or SHAVING SOAP.

Samples and prices on application.

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THE REPUTATION OF OVER HALF A CENTURY

ESTABLISHED 1866



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BEST
WORKMANSHIP

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FINISH

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NEWMAN HOUSE, WILLESDEN GREEN, LONDON, ENG.

Telegrams "KIRBY, Limited, Phone London." Codes: A B C 5th Edition & Bentley's. Telephone: Willesden 412.

Maw's



Page

Maw's Nursery Powders

Our new series of nursery powders which we introduce here are a staple line of the pharmacists' in an entirely new dressing. We have taken these popular lines, Nursery Powder, Violet Powder, and Fullers Earth, and designed new sprinkler top tins and striking new outers for them, but at the same time have kept the prices still low.

Nursery powders which retail at 2d., 4½d. and 6d. per tin, and are contained in strong, well finished, brightly decorated tins, will surely be an intensely popular line—one which no pharmacist can afford to ignore.

Our illustration conveys some idea of the new tins and outers. Together they make a most effective display—the modern colour scheme and design of both the tins and outers are worthy of the foremost place in your window or on your counter.



Apart from the question of presentation and packing, there is also the splendid profit attached to these nursery powders as the following prices show.

Wholesale	Retail
16/- per gross.	2d. per tin.
36/- per gross.	4½d. per tin.
48/- per gross.	6d. per tin.

See that you include these nursery powders in your stock **now**. Already they have achieved tremendous success.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.



Telephone: City 7
Private Branch Exchange
Telegrams: Eleven Cent London

Cables: Eleven London
Code: A.B.C. 4th & 5th Edition

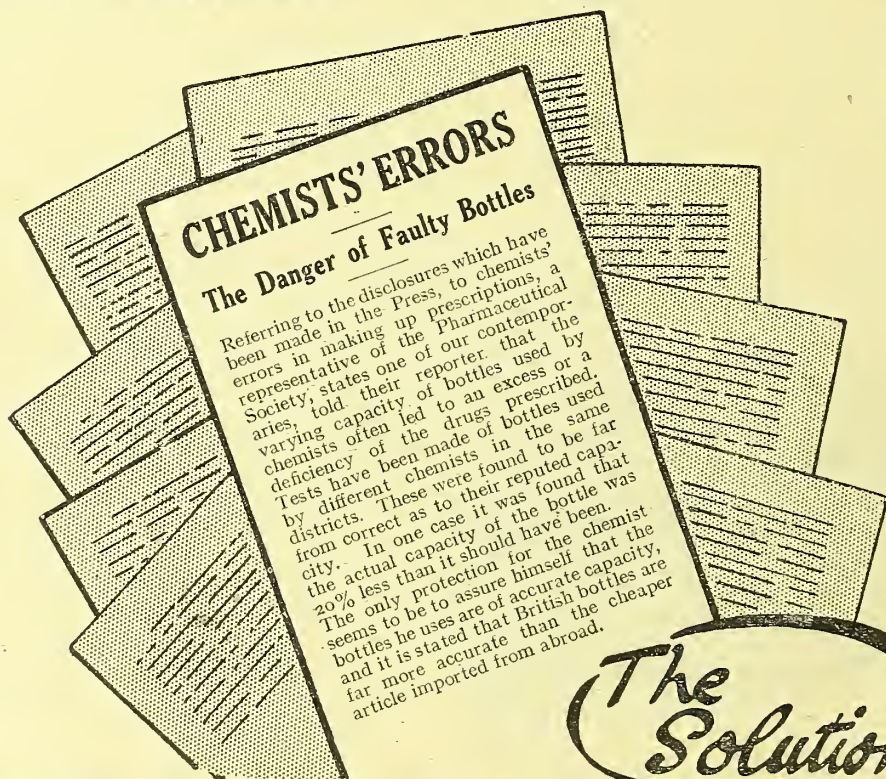
CHEMISTS

USE BOTTLES of A

*Keep the confidence
of your Customers*

U.G.B.
BRAND

USE GOOD BOTTLE



*The
Solution*

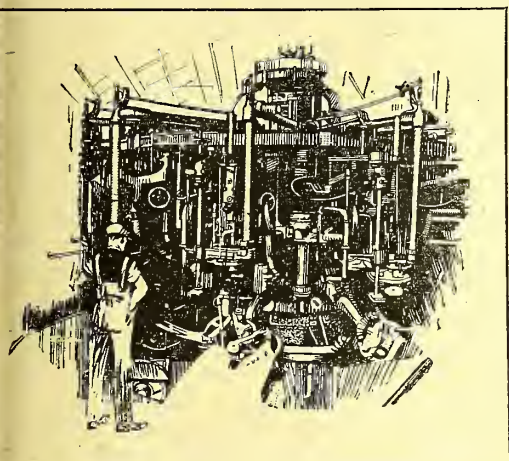
USE ACCUR

PROTECT YOURSELVES AND SAFEGUARD YOUR CUSTOMERS BY ACCURATE CAPACITY

THE wide publicity recently given in the Press to the percentage of inaccurately filled prescriptions is a serious reflection on the profession generally. The inaccurate capacity of the bottles is very largely blamed, and it is admitted that there are very few bottles on the market which can be relied upon for accurate capacity.

Exhaustive tests by the Research Laboratories of the United Glass Bottle Factories have established the fact that the U.G.B. Medical bottles, made exclusively on the Owens Automatic Bottle Machine, as expertly exploited by the U.G.B., are the most accurate bottles procurable.

Safeguard yourself and your customers by using U.G.B. Bottles—the bottles you can rely on.



The Owens Automatic Machine.

Insist upon your Dealer supplying U.G.B. Bottles.

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Telephone : Central 8080 (10 lines).

Telegrams : "Unglaboman, Estrand, London."

Works :

Charlton, London ; Castleford, Yorks ; St. Helens, Lancs ; Hunslet, Leeds ; Seaham Harbour, Durham.

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PAPIER POUDRÉ

TRADE

MARKS



**British Made
Goods.**

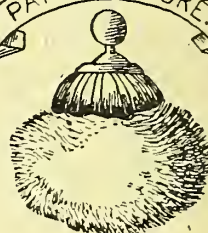
**Note our Trade
Marks.**

"LEHCARESOR,"

Papier Poudre

*Beware of
Spurious Imitations.*

REGISTERED



PAPIER POUDRE, LTD.,

46 Baker St., Portman Sq., London, W. 1,
and at Paris.

**WHITE, ROSE or RACHEL Tints, 4d., 6d., 8d., and 1/4 size Booklets,
2/8, 3/9, 5/- and 10/- per doz. net, respectively.**

A NEW LINE IN PAPIER POUDRÉ.

**BOOK IN WHITE, ROSE or RACHEL TINTS, containing a neat Mirror,
Price 1/-, at 7/6 per doz. net. This should make a good selling article.**

SUNBURN TINT, 8d. and 1/4 sizes only, 5/- and 10/- per doz. net.

NEAT MIRROR CASES, 1/6 13/9 per doz. net.

REFILLS to Mirror Cases in White, Rose or Rachel, 4d. 2/8 per doz. net.

8d. SHAVING PADS, for Use after Shaving (unscented), white only ... 5/- per doz. net.

POPPŒA ROUGE

A most popular line.

(Regd.)

Made in booklet form. One size only, viz. 1/-, at 8/- per doz. net.

Mirror Cases 1/6, at 13/9 per doz. Refills for same 6d., at 3/9 per doz. net.

PAPIER POUDRÉ, Ltd., 46 BAKER STREET, LONDON, W.1

Blood Purifiers and Tonics for the spring.

¶ The ever popular 'SCRIPT' series of Packed Specialities are particularly well done by AYRTONS. We get beyond the label, by being assured that the bottle stands well on a perfect base—that the cork really does its job—and that the capping completes the effectiveness. On the laboratory side, there is a careful test of ingredients, an efficient plant, and an assiduous technical supervision which makes for PERFECT PRODUCTS.

Blood Purifier & Tonic 4-oz. 6-oz. 8-oz.
(uncartoned) 'SCRIPT' 5/9 6/9 7/9
own name on 3 dozen. per dozen.

¶ Our Star, Mortar, Anchor and Purple Key Series gives you sole rights under your own name within a radius of two miles.

Blood Purifier & Tonic 4-oz. 6-oz. 8-oz.
(uncartoned) 'SERIES' 5/9 6/9 7/9
per dozen.

¶ An attractive cartoned line.

Iodised Blood Purifying 8-oz.
Mixture 'A STYLE' 12/6 per doz.

Special packings for Export—Prices on application.

A reminder—We have every reason for satisfaction at the quantity of WATER-GLASS which has been placed by us this season. Succeeding weeks have created new records. The showcard and the leak-proof pack with the customer's name, are winners.

AYRTON, SAUNDERS & CO., Ltd.

Manufacturing Chemists

LIVERPOOL, ENG.

Natural Mineral Waters.

WE beg to inform the Trade that we are regularly receiving consignments of Natural Mineral Waters from the Continent and other parts of the world.

AESCULAP
AIX - LES - BAINS. (DEUX
REINES)
APENTA
APOLLINARIS
BARIUM
BILIN
BONNES
BOURBOULE, LA
BUXTON
CARLSBAD
CARLSBAD SPRUDEL-
SALT

CHALLES
CHATEL GUYON
CHELTENHAM SPA
CONDAL
CONTREXÉVILLE-
PAVILLON

COULSWORTHY
EMS WATER
EMS SALT & PASTILLES
EVIAN-CACHAT
FACHINGEN
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FLITWICK
GIESSHUBLER (MATTONI)
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INSALUS
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RUBINAT-LLORACH
RUBINAT-SERRE
ST. BOES
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ST. MARCO
SANGEMINI
SELTERS (IN STONE JUGS)
SULIS
TANSAN
VALS
VICHY-CÉLESTINS
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VICHY SALTS
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WOODHALL SPA
WOODHALL MOTHERLYE
WYCHIA

PRICES OF THE ABOVE QUOTED ON APPLICATION.

Any Natural Mineral Water not in stock, if procurable can be imported to special order during the Season.

INGRAM & ROYLE, LTD.

BANGOR WHARF, 45 Belvedere Road, LONDON, S.E.1

Telephone: HOP 4343 (2 lines).

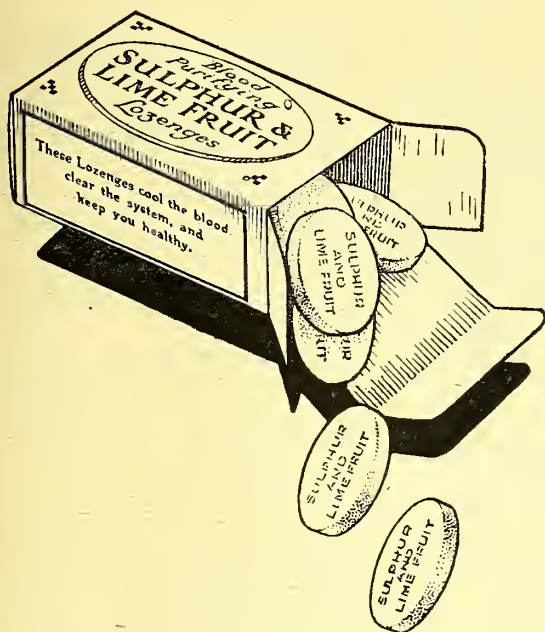
Telegrams: "INGRAM ROYLE, WATLOO, LONDON."

LIVERPOOL: 19 South John Street.

Telephone: Bank 4528. Telegrams: "CELESTINS, LIVERPOOL."

BRISTOL: Bath Bridge.

Telephone: 1113. Telegrams: "SPRUDEL, BRISTOL."



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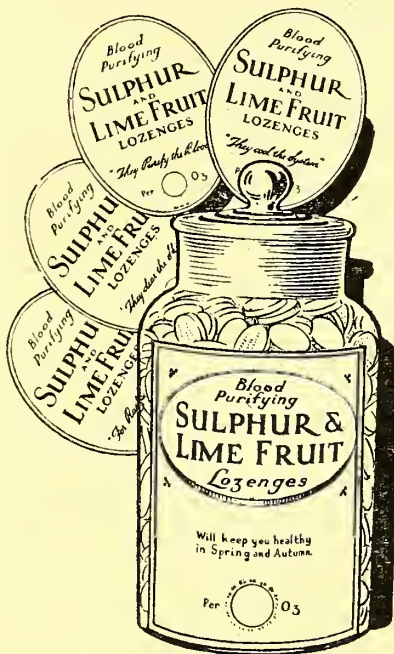
250 2oz. Cartons
Stoppered Jar
and 4 Oval Cards
with 28lb. order for
**SULPHUR &
LIME FRUIT
LOZENGES**

(Best Hand-made)

Per 1/6 lb.

MANY people are tired of ordinary compressed Sulphur Tablets, which have never successfully replaced the original paste lozenges.

¶ These Sulphur and Lime Fruit Lozenges will come as a welcome change to your customers, both on account of their enhanced cooling and anti-scorbutic properties and because they are genuine hand-made lozenges whose superiority over the compressed variety is unquestionable.



THOMAS KERFOOT & CO LTD
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

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"Specialty" Packed Goods

**Highest Quality
Competitive Prices**

Before renewing your orders for any Line of packed Goods—Liquid Paraffin, Petroleum Jelly, Ointments, etc.—write for our samples and latest quotations. Being one of the largest importers of White Oils, we can quote keenest prices whilst maintaining the highest quality and most attractive packings. A postcard will provide the proof.

LIQUID PARAFFIN

A brilliant water-white oil (s.g. 890) of the highest viscosity, conforming strictly to all B.P. requirements and brilliant at 0°C. Packed in white oval, flat, or panelled flat bottles, which emphasise the brilliancy of the contents.

OINTMENTS

All B.P. and other Ointments, Cold Creams, Coconut Oil, etc., supplied either in flat decorated tins or screw-capped opal jars—also in bulk in 1-lb., 7-lb. and 28-lb. free tins.

EMULSIONS

Non-separable Petroleum and Cod Liver Oil Emulsions, with or without hypophosphites. Petroleum Emulsions in 33% and 50% strengths. Cod Liver Oil Emulsions in 25% and 50% strengths. Packed in special wide-mouth oval-shape bottles in all sizes, with white viscose caps.

Any of the above supplied in bulk at competitive rates. Send for samples, latest prices and specimen labels.

Specialty Dept.
Anglo-American Oil Co. Ltd.

Albert Street,
Camden Town, London, N.W. 1.

**LIQUID
PARAFFIN B.P.
TOILET PARAFFIN
BRILLIANTINES
OLIVE OILS
HONEY
EUCALYPTUS OIL**

Send your enquiries to

REDDGRAVE BUTLER & Co., Ltd.
Park Lodge,
Forest Lane, Stratford, London, E.15

**JAKSON'S
PEPPERMINT, LAVENDER
& CAMOMILE OILS**
are the BEST.

Produced and Prepared by
**THE LARGEST GROWERS & DISTILLERS
IN ENGLAND.**

Distillery :
J. JAKSON & CO. (Mitcham Rd., 1921), LTD.
Mitcham Road, WEST CROYDON.

AGENTS for the U.K. :
F. NEWBERY & SONS, LTD.
27 & 28 Charterhouse Square, London, E.C.1

Established 1795.

LAUTIER FILS

Works : GRASSE (France) & BEYRUT (Syria).

Essential Oils — Synthetics.
All Raw Materials for Perfumery.

You will increase your profits by ordering from US
the following Oils :—

Absinth	Laurel
Almond, bitter,	Lavender
Angelica [S.A.P.	Lemon
Basil	Mace
Bay	Mellissa
Bergamot	Neroli big and Syn.
Bois de Rosefemelle	Orange
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Caraway	Patchouli
Cinnamon	Peppermint
Cloves	Rosemary
Copaiba	Rue
Costus	Sandalwood
Cubeb	Spike Lavender
Fennel	Tansy
Geranium	Tarragon
Honey	Thyme
Hyssop	Vetivert

Olive, Peach Kernel, Sweet Almond Oils,
Floral Waters.

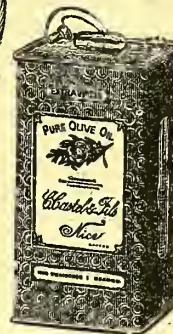
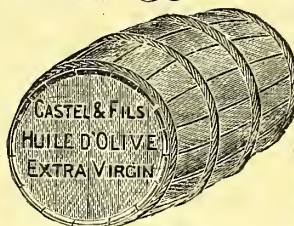
Wholesale and Export only.

LAUTIER FILS, Ltd., 4 Denman St., London Edg., S.E.1
Tel. Add.: "LAUTIER, PHONE, LONDON." Telephone : HOP 2819.

Genuine Nice



OLIVE OIL



CASTEL'S Genuine Nice OLIVE OIL

In buying Castel's Olive Oil, you
buy best Nice Oil only—guaranteed
fully by the refiners, a firm with a
big reputation, established in Nice
for 122 years. There is no Oil
better—few as good.

Write to-day for New Season's Prices.

Rayner & Co. Ltd.
Stocks in London,
Liverpool and Glasgow.

NORTH ROAD - LONDON, N.7.

Nuctone

Regd.



What "Users" say:

The number of unsolicited testimonials to the
wonderful results obtained with NUCTONE
would fill a book.

Here are some of the words used to express
their satisfaction—"Delighted," "Excellent,"
"More than pleased," "Nothing like it,"
"Just what I wanted," "So easy to apply,"
etc., etc.

Has Solved the Grey Hair Problem

NUCTONE is the discovery of an eminent Hair
Specialist. Restores the colour gradually, per-
manently, safely. Guaranteed free from any in-
jurious ingredients such as sulphur or lead.

Repeat Orders Assured

Customers who try NUCTONE continue using it,
they are so delighted with the results. This means
a steadily increasing business for the Retailer.

Retail Price 6/6 per Bottle
Trade Price 52/- „ dozen

Manufactured by—

Stewart, Goodall & Dunlop, Ltd.
4 Dering Street, LONDON, W.1

Stocked by Leading Wholesale Houses.

NEWS FROM LUXOR

There is no truth in the rumour that a bottle of Potter & Moore's Lavender Water has been found in Tutankhamen's burial chamber! A great misfortune this, as there have probably been many occasions when the workers in the dust-laden fœtid atmosphere of the Tomb would have given worlds for a whiff of the famous Old English Perfume.

POTTER & MOORE'S

1749

MITCHAM LAVENDER WATER

A Perfume of distinction which has stood the test of time.

BATH SALTS
SMELLING SALTS
SACHETS
FROZEN
LAVENDER
WATER
TOILET SOAP



If the Lavender Water
pleases you and gives every
satisfaction, why not make
a point of trying
POTTER & MOORE'S
1749
MITCHAM LAVENDER
TOILET SOAP?

PRICES ON APPLICATION.

POTTER & MOORE

(ESTABLISHED
1749)

The Lavender Distillery,
MITCHAM, SURREY.

Sole Proprietors :

W. J. BUSH & CO., LTD.,

ASH GROVE, HACKNEY,
LONDON, E. 8.

Sole Scottish Agents for Perfumery Products :

Messrs. MUNRO M'LAREN & SUTHERLAND

GLASGOW.

We are Exhibiting

Peldo
at the (Patent applied for)

IDEAL HOME EXHIBITION

and are receiving numerous enquiries
as to where it can be obtained?

We reply "FROM ALL CHEMISTS."

IF YOU DO NOT ALREADY STOCK
"PELDO," IT CAN BE OBTAINED
FROM ALL THE LEADING PATENT
HOUSES, OR DIRECT FROM US.

RETAIL PRICE **1/6**
(P.A.T.A.)

WHOLESALE PRICE **13/6** DOZ.

Showcards and Window Display Material supplied.

Remember "Peldo" business is all new business

Sole Proprietors and Manufacturers :

C. R. HARKER, STAGG & MORGAN, LTD.

DEVON WHARF AND BELL WHARF,

EMMOTT STREET, MILE END, LONDON, E.1.



The
**HENNA
CULT**

of Hair Beauty, based
on the famous

EVAN - WILLIAMS

ORIGINAL

HENNA SHAMPOO

daily extends its bound-
aries, and is now a
subject for popular
journalism.

It pays to sell this famous line.

You will find full details of terms and
prices in the current issue of "THE
SHAMPOO SALESMAN," a copy of
which is gladly sent on request.

Be sure to order



Wholesale only:

THE EVAN-WILLIAMS CO., LTD.
18 Ogle Street - LONDON, W. 1.

Ma Chérie

(REGD.)

Toilet Preparations and Perfumery.

FACE POWDERS 4 shades—White, Rachel,
Chair (Natural) and Rose. Three sizes
4/6, 6/6, 10/6 doz.

SOLID POWDERS In 10 shades—White,
Rachel, Naturelle, Rose, Rouge, Incarnat,
Rouge Foncé, Rouge Brunette I, Rouge
Brunette II, and Egyptienne.
In card boxes, with puff ... 4/6 doz.
In gilt metal boxes, with puff 8/6 "

VANISHING CREAM Specially prepared
that it may be used a Day or Night Cream
—a real Skin Food in All China Pot,
each pot in carton. 10/6 doz.

SOAP LEAVES 40 leaves in a book. Sell
at sight to all golfers, motorists, doctors,
etc. Invaluable for washing in emergency
as these can be carried in pocket book.
Antiseptic and delightfully perfumed.
30/6 gross.

SHAMPOO POWDERS Each shampoo
contains sufficient for 3 wet shampoos.
Unbeatable for quality and price.
12/6 gross.

TOOTH PASTE Specially prepared and
sweetened with Saccharin to ensure that
no anti-dental constituent is contained in
its manufacture. 8/6 doz.

DIPLOMAT Regd.
SHAVING STICK in nickel case, 8/6
doz. RELOADS for above in cardboard
outer, 4/3 doz. (reduced wholesale price).

MA CHÉRIE BATH SOAP 6 in box,
assorted perfumes and each tablet packed
separately. 5/6 doz. (reduced wholesale price)

MA CHÉRIE BATH SOAP (New Shape)
Made absolutely flat. Will not slide about, each
tablet cellophane wrapped. 4 in box assorted
perfumes. 6/6 doz. (reduced wholesale price).

NOTE.—In cases where we have reduced wholesale prices P.A.T.A.
prices remain as heretofore. Cash discounts and "all
goods carriage paid" is not affected by reductions.

MA CHÉRIE BATH SALTS
40 oz. in glass stoppered jar. We beg to advise
our numerous clients that the above well-known
line has been advanced from 40/- dozen to 60/-
dozen and the retail price to 7/6, owing to the
advanced cost of production. In 14 different
perfumes.

Chemists wishing to make a good invest-
ment for the Spring are recommended to
lay in a stock at present price.

Johann Maria Farina Eau de Cologne
(Professor Dr. Pilgram)
We have still a small quantity of this line
remaining, in 3 sizes as advertised.

MA CHÉRIE, Ltd.

London House : 35 Crutched Friars, E.C.3

DEARBORN (1923) LTD.**37 Gray's Inn Road,
LONDON, W.C.1.****Toilet Specialties.**

	Price per doz.	Selling Price to Retailer P.A.T.A.
PILENTA SOAP ...	10/-	1/-
A complexion soap.		
PROLACTUM ...	10/-	1/-
For the lips.		
PARSIDIUM JELLY ...	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM ...	22/6	2/6
A dressing cream.		
BORANIUM ...	22/6	2/6
A hair tonic.		
CLEMINITE ...	22/6	2/6
For a face lotion.		
COLLIANDUM ...	22/6	2/6
For a face tint.		
PERGOL ...	22/6	2/6
A deodorant.		
TEKKO PASTE ...	22/6	2/6
Camphor cream.		
STALLAX ...	22/6	2/6
For a shampoo.		
JETTALINE ...	31/6	3/6
For clearing the skin.		
PHEMINOL ...	36/-	4/-
A depilatory.		
MENNALINE ...	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ...	31/6	3/6
A face cream.		
STYMOL ...	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ...	22/6	2/6
Hair-curling fluid.		
BARSYDE ...	22/6	2/6
Dandruff eradicator.		
TAMMALITE ...	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ...	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ...	22/6	2/6
For whitening the hands.		
HARAPOSA ...	22/6	2/6
Nut oil shampoo.		
COCONOIDS ...	31/6	3/6
For figure development.		

The Products of**Messrs. PARKER, BELMONT & CO.**

CLYNOL BERRIES	36/-	4/-
For obesity.	58/6	6/6

SOFT PALERIUM... ... **45/-** **5/-**

For wrinkles.

LIQUID NAIL POLISH ... **10/-** **1/-**

Brilliant and lasting.

Stocked by ALL Wholesale Houses.**COLONIAL DEPOTS AND AGENCIES.****Australia:** ALL WHOLESALERS, & DEARBORN (Australia), Ltd., Grace House, Clarence Street, Sydney.**South Africa:** LENNON Ltd, Cape Town, etc.**SIVE BROS. & KARNOVSKY,** Johannesburg.**India:** FRAMJEE & SON, Bombay.**SMITH, STANISTREET & CO.,** Calcutta.**New Zealand:** SHARLAND & CO., Auckland & Wellington.**South America:** DEARBORN (South America), Ltd., Calla

Salta 264, Buenos Aires.

Straits Settlements & Federated Malay States: MEDICAL

HALL, Ltd., Singapore.

**Tripinate
Bath Salts****Containing Isobornylalyl-Pineol.***Recommended for***RHEUMATISM****LUMBAGO****SCIATICA****SPRAINS****MUSCLE STIFFNESS**

Tripinate Bath Salts do not merely colour and perfume the bath water, they have distinct medicinal properties, and greatly stimulate the activity of the heart and blood circulation.

*For full particulars and Terms
apply*

COLE & WILSON
19 Railway Street
HUDDERSFIELD

*Selling Agents:***KEMCO LTD, Trinity Street, Huddersfield**

PARFUMS D'ORSAY

PARIS.

REDUCTION IN PRICES

OWING to the continual fall in the rate of Exchange of French Currency, and in order to bring the English prices in conformity to those actually prevailing in France, we have decided to reduce them. All our customers who have stocks of our lines should communicate with us, advising us of their stock, particularly in the lines in which they note reductions in the new Price List sent to them.

Sole British Agents:

S. NAMIAS' SONS, 54 George St., Baker St., W.1

Telephone

Mayfair 3925.

Ireland: W. J. RANKIN & SON, 11 Waring Street, Belfast.

Talcum Powder

OF ALL GRADES
FOR ALL PURPOSES

FOR SAMPLES AND PRICES APPLY TO:

W. Harrison & Co., Ltd.

16 MINCING LANE, LONDON, E.C.3;

And at

14 MARKET PLACE, MANCHESTER.

PERFUMERS! SAVE LABOUR!

Headquarters for

Vanishing Creams, Shampoo Powders, &c.

In Bulk or Packed. Samples and Prices upon request.

GIVE us a TRIAL and be convinced of the QUALITY

O-PINE-O MANUFACTURING COMPANY, Ltd.

Montague Road, HORNSEY, LONDON, N. 8.



SHADEINE

FOR COLOURING GREY HAIR

This popular article is largely advertised and stocked by all Wholesale Houses.

Trial Size 8d., per post 10d. 1/4 size, per post 1/7; 2/6 size, per post 2/11; 3/9 size, per post 4/6; 8d. size, 6/- doz.; 1/4 size 12/- doz.; 2/6 size, 24/- doz.; 3/9 size, 36/- doz.

THE SHADEINE CO., 58 WESTBOURNE GROVE, LONDON, W.

DODGE & OLCOTT CO.,

20 MARK LANE,
LONDON, E.C.3.

THE "D & O" BRAND

is the "Standard of Quality" for

OILS of BAY, CEDARWOOD, PATCHOULI, PEPPERMINT,
SASSAFRAS, ETC.

BALSAMS of Copaiba, Peru, Tolu.

TONKA BEANS, Angosturas.

Phone—
CITY 2468.

Telegrams—
"EGDARF, FEN, LONDON."

"Catching the Five-Forty-Eight"

"An intangible, imaginary train that carries one wheresoever he listeth, a train of thought."

(Of course, you know full well that "Five-forty-eight" is the sign and symbol of Georges Salomon, the famous French manufacturer of Lemon Juice Soap?)

HE who would go a-journeying must be there betimes for the train. Life and business are like that. Imperious fashion, like time and tide and trains, waits for no man.

A vogue begins, for example, in Lemon Juice Soap. Some miss the train, or don't "get in"—and so do not "get on" as they might.

"Gentlemen," the guard is now saying, "Any more for the 5.48 to Prestige and More Profit, via Salomons?" (Now Booking at Ferber's.)



GEORGES SALOMON'S

GENUINE

Lemon Juice SOAP

Boxed in 3's. Retails 1/3 Tab
Trade 9/6 doz. tabs.

Manufactured exclusively by
GEORGES SALOMON, Paris

Sole concessionaires for
Great Britain and Ireland:—

ROBERT FERBER LIMITED,

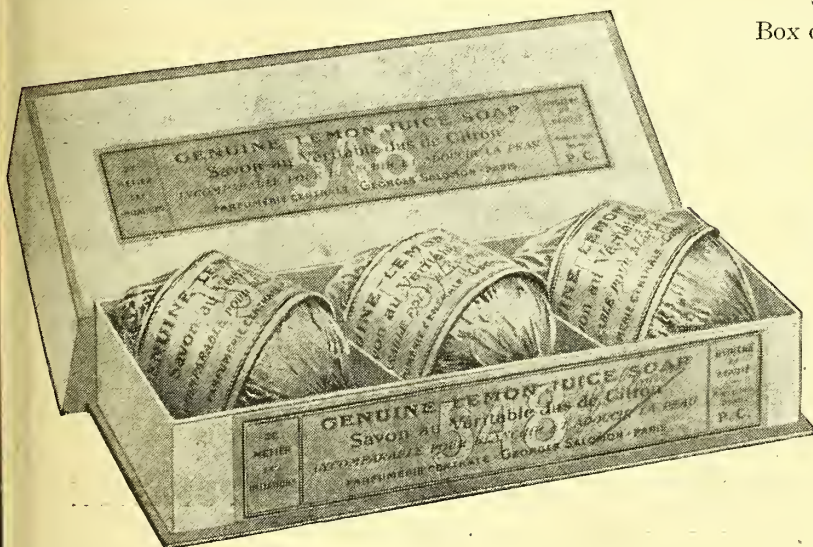
CARLTON WORKS, ASYLUM RD.,
PECKHAM, S.E.15.

Sample Tab. 9d.

Box of three 2/3 post free.

Window Display.

Write for special terms for window display lots. Show-cards and display material free.





Parfumerie

Bourjois

Paris

The Celebrated

Ashes
of
Roses

(Solid Face Powder)

No. 2.

Price: 15/- per doz.

P.A.T.A. Price: 1/9 per box.

A. Bourjois & Cie, Ltd., 66 Carter Lane, London, E.C. 4.

Also manufacturers of the famous POUDRE de RIZ de JAVA { No. 45, 10/- per doz. P.A.T.A. 1/3 per box.
No. 495, 7/- per doz. P.A.T.A. 10½d. per box.

Hypatia Soap

THREE SIZES

P.A.T.A.
PROTECTED
PRICES

Bath ..	9d.
Toilet ..	5d.
Visitors ..	2½d.

THE LAST WORD IN PERFUMED SOAP.
EACH TABLET WRAPPED IN CELLOPHANE.

Write for Samples to

R. WHEEN & SONS, LTD.

Toilet Soap Makers.

LONDON, S.E.8.

OWN BRAND TOOTH BRUSHES

W. R. TILBURY & SON, Old Established Tooth Brush Specialists,
offer you their unrivalled resources for the production of

YOUR OWN BRAND, packed in attractive cartons.

ORDERS FOR 7 GROSS FOR DELIVERY OVER A CERTAIN PERIOD ARE PACKED IN
ATTRACTIVE CARTONS PRINTED WITH CUSTOMER'S OWN NAME AND ADDRESS.

TILBURY'S TOOTH BRUSHES HAVE A WORLD WIDE REPUTATION

Works : 47 Frampton Park Road, Hackney, London, England.

IMPORTANT NOTICE TO THE TRADE BY ROBARTES (1922) LTD.

Members of the P.A.T.A.

¶ The proprietors of the well-known toilet preparations, namely, Decoltene, Dinkie and other Diadem specialities, are arranging a huge advertising campaign appealing approximately to 4,000,000 ladies per week, and chemists should stock up these lines against certain heavy demands.

¶ With the change of proprietorship the manufacturing organisation is the finest in the Kingdom, and each Diadem line is manufactured by highly qualified and thoroughly competent chemists. The new Decoltene and Dinkie will be a revelation to both user and stockists.



THESE LINES SHOW AN "ON COST" PROFIT ^{OF} ABOUT 67%

	P.A.T.A.	TRADE TERMS
DECOLTENE. The New Liquid Hair Remover	3/9	30/- doz.
DINKIE. The Dainty Deodorant.	2/6	20/- "
DIADEM VANISHING CREAM. A new and improved formula	3/9	30/- "
DIADEM COMPLEXION WAX. An improved night cream	2/6	20/- "
DIADEM FACE POWDER. All popular shades	2/6	20/- "
DIADEM TALCUM POWDER	1/3	10/- "

FURTHER DISCOUNTS AS FOLLOWS:

As a further inducement to stock these lines against the heavy demand created by our press campaign, the following liberal discounts are offered	On £3 parcels,	5% discount extra.
(Subject to 1 1/4% cash, 7 days):	On £5 parcels,	7 1/2% " "
	On £10 parcels and over,	10% " "

Artistic show cards and other advertising matter for window displays liberally supplied. Send your orders at once

ROBARTES (1922) LTD., HAZLITT HOUSE, SOUTHAMPTON BUILDINGS,
HIGH HOLBORN, LONDON, W.C.1.

"SAMBOY" HAIR TONIC

is made from the purest materials which combined, provide a genuine tonic, unrivalled in its beneficial effect upon the hair and scalp. It is called "a wonderful grower," and may be used by young and old without harm; is especially good in relieving irritation, and cleansing the scalp. It preserves the colour of the hair.

To be obtained from maker on sale or return terms, but is a ready seller. Everyone likes "Samboy."

"SAMBOY," 22 STRAND, RYDE, I.W.

"TAPON" (Regd.)

Tie up your Parcels with Advertising Tying Tape. Pleases both Eye and Pocket and gives Distinction to every Parcel sent out.

Various Colours and Widths, Printed or Plain.

Write for particulars, when Prices and Patterns will be forwarded.

S. D. SIMOND & CO., LTD.
10 Monument Street - - E.C.3

Tel.: Avenue 6378. Telegrams: "Duncasim London."

BEAUTY IN A CRATER

KemOlite

Natures' Own Radio-Active Beauty Aid.



Show it with
POWDER & CREAMS
and build up Accumulative Repeat Sales.
TERMS: Selling Price 6/6
Trade Price 54/- per dozen.
£600 PRIZE CONTEST

Write for particulars. Chemists' Sales Agents:
For the Midlands and North also Scotland,
PENNEY & CO.
Bigg Market, Newcastle-on-Tyne.
For London and the South including
South Wales and the Eastern Counties,
SELLING SERVICE, LTD.
Cavendish House, 20 Old Cavendish
Street, London, W.1
and all Wholesalers.

WHALEBONE HAIR BRUSHES

BEST LONDON MADE.

**WHOLESALE AND
EXPORT ONLY**

PROMPT DELIVERY.

Write for Prices and Samples.

*The most complete Range
in the Trade.*

Also Polished Horn,
Fin. Bone (Extra
Fine Whale-
bone).



SHAVING BRUSHES

OF PURE BADGER,
IMITATION BADGER,
etc. Best London Made.

Write for Samples.

JOHN FREEMAN, 10 Moor Lane, London, E.C.2

Brush Manufacturer & Importer. Telephone: London Wall 1656. Factory: WALTHAMSTOW.



OUR SPONGES

AGAIN
Considerably Reduced
in Price.

Competition Defied.

WRITE FOR SAMPLES AND PRICES
OR CALL AND INSPECT OUR STOCK.

New Showrooms and Warehouses :
25 FINSBURY ST., CHISWELL ST.,
LONDON, E.C.2.

Telephone - - - CLERKENWELL 5428.

The

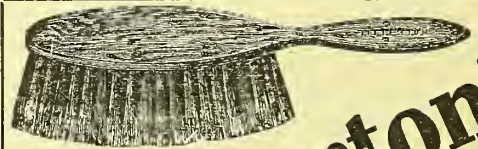
Sponge Fishing & Importing Co., Ltd.

(Société Anonyme pour la Pêche et l'Importation des Eponges)
Incorporated in Belgium.

Buying Branches at Sfax, Tripoli, Kalymnos-Symi, Hydra,
Balabona, Nassau and Florida.

Selling Branches at Brussels, Paris, Barcelona and Hamburg.

No connection whatever with any other Firm.



Titterton's
Celebrated
**HAIR
BRUSHES**

Tooth, Nail & Shaving Brushes

TITTERTON & HOWARD, Ltd., 8-10 Gt. Titchfield St., W.1.

Factory: Albion Works, Dalston Lane, E.8.

G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

**BEST
BRITISH
BRUSHES**

Please write for full Particulars to—

75 Farringdon Road, E.C.1.



Men buy them! Women buy them! Children buy them!

ARE you taking advantage of the increased demand for Sorbo Sponges which has followed on this year's reductions in their price?

With our new and improved plant we are turning out huge numbers of Sorbo Sponges every day to keep pace with the growing numbers of customers who want Sorbo Sponges—the only sponges which soap improves.

All the year round, morning and evening, men, women and children need Sorbo Sponges. Everyone in your district is a potential customer for Sorbo Sponges; and every Sorbo you sell means a quick and generous profit—33½%—to you.

Send your order to-day.

SorboSponge

THE MOST ABSORBENT RUBBER SPONGE

Retail Prices: No. 1, 1/-; No. 2, 1/9; No. 3, 2/6
No. 4, 3/9. Bath Sizes: No. 4R 5/-; No. 5, 7/6

Sorbo Rubber-Sponge Products, Ltd.

Sorbo Works, Woking, Surrey.

London Office - - - 24 Walbrook, E.C.A.



Wanted
in every
Factory.

Wanted
in every
Household.

"CHEMICO" HAND SOAP

removes all grease, grime, dirt and stains from the hands instantly without the slightest risk of injury to the most delicate skin.

Indispensable in the home for all cleansing purposes; pots, pans and all kitchen and scullery purposes; baths, floors, and indeed all work where soap can be used.

It cleanses, purifies and sweetens; its use does not roughen, harden or redden the hands, but leaves them grime and grease-free and as clean, white and soft as before use.

Handsomely packed in highly attractive enamelled tins, in two sizes retailing at 4d. and 7½d. per tin with a very liberal profit margin.

A GREAT LINE FOR MERCHANTS,
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Send for Sample Tin and Try it.

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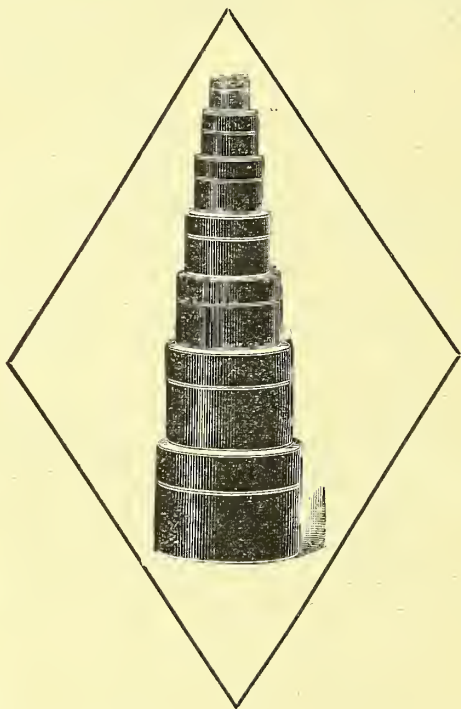
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Chemico Works, BIRMINGHAM.

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WHEN ORDERING FROM
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 YOUR NEXT SUPPLY OF

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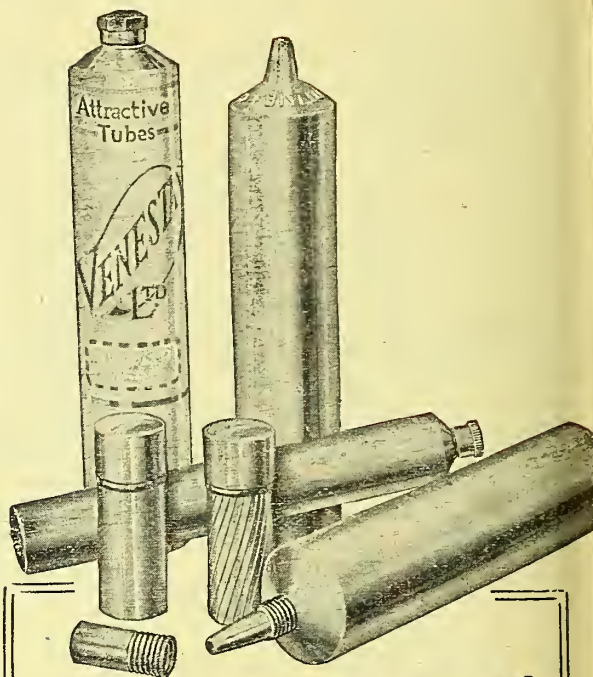
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When ordering your next supply of tubes remember that Venesta collapsible tubes possess a quality and finish that make them a real selling force.

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Cases	48×1's	..	Screw-top Glass	..	12/9	per doz.
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Prices and Terms on application to R. BARKER & SON, Ltd.
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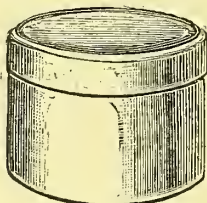
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POISON.**

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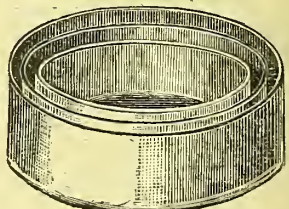
Fill the gap between the chip box and the porcelain pot. Try an assorted dozen. You will find them just what you want.



$\frac{1}{2}$ oz.



1 oz. TALL.



FLAT SHAPE NESTED.
 $\frac{1}{2}$ oz. 1 oz. 2 oz.

PRICES (Either shape, tall or flat.)

Per gross : $\frac{1}{4}$ oz. **10/6** $\frac{1}{2}$ oz. **13/6** 1 oz. **18/6** 2 oz. **30/-**

The 2 oz. tall shape is similar to the 1 oz. size but twice the height.

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You can safely recommend it.

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Unpolished red all rubber.
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18/6 per doz.

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Clinical Thermometer
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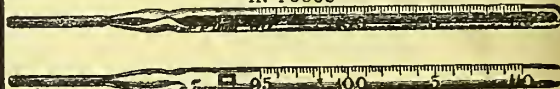
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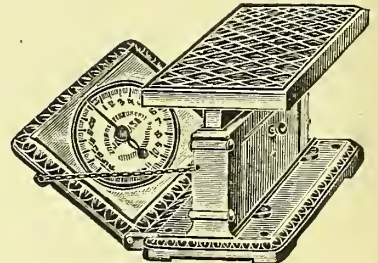
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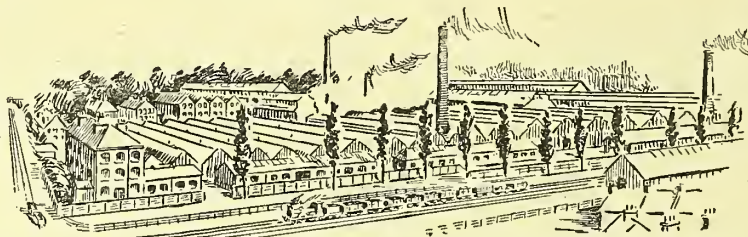
This form of container is lighter and stronger than a wood case—also more convenient as it can be stored in the flat and made up as required. It will also be found to be cheaper. Vickers Limited are in the position to give free advice as to plant and can now supply the machinery.

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is a transparent film of pure Cellulose, absolutely air, grease, and odour proof, unaffected by cold, heat or moisture, and sterilisable.

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It gives seller and user the best visible results. Now is the time to push it. Get the "PIPER OF PERTH" in your window, and you will find he makes sales. Rodine yields nearly 100% protected profit to all Chemists when bought direct from the Maker.



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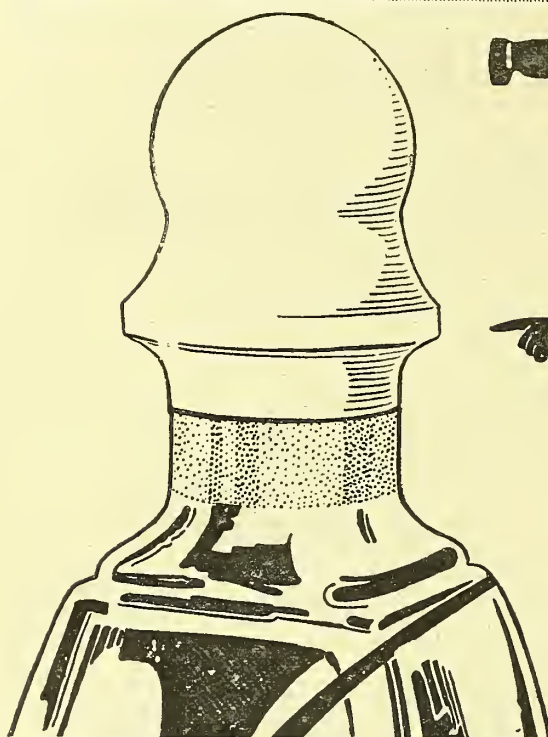
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C. & D. Stock-taking Sheets

Those chemists whose financial year closes at the end of March, and who require to take stock, should note that the *C. & D. Stock-taking Sheets* halve the labour of taking stock. The items are arranged on ruled paper in the same order as in the *C. & D. Retail Price List*, which is afterwards employed for pricing out the articles, the amount of each column being then transferred to specially ruled pages at the end of the pad. Hints on stock-taking are given on the inside of the cover. The items in the *Stock-taking Sheets* cover all drugs, chemicals and galenicals found in chemists' shops, and, being in alphabetical order, are easily found for entering up. By means of the *Stock-taking Sheets* one person can take stock, but it is better for two assistants to work together, the more experienced calling out the quantity of the drug, etc., and the other entering it in the *Stock-taking Sheets*. The price of the complete pad of *Stock-taking Sheets* is 2s. 6d., post free, cash with order.

English and Welsh News

The Editor would be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Dental Affairs

A meeting of the dental representatives and those of the approved societies was held at 23 Russell Square, London, W.C., on March 7 for further discussion of the charges for dental treatment to insured persons. It was reported that copies of the proposed revisions had been circulated to members of the dental societies, and that the principle of better fees for conservative dentistry and lower fees for extractions and dentures was generally accepted and approved. The new fees will take effect from April 2, 1923, until July 1, 1925. The sub-committee will remain in existence for the purpose of arranging any practical details and differences which might arise and be submitted for adjustment.

Dyestuffs (Import Regulation) Act, 1920

The total number of applications for licences under the above Act received during February was 646, of which 514 were from merchants and dealers. To these should be added 56 applications outstanding on February 1, making a total for the month of 702. These were dealt with as follows:—

Granted—463 (of which 441 were dealt with within seven days from receipt).

Referred to British makers of similar products—121 (of which 116 were dealt with within seven days from receipt).

Referred to Reparation supplies available—88 (all of which were dealt with within 48 hours of receipt).

Outstanding on February 28—30 (mostly applications received on February 28).

Of the total number, 702, of applications received, 553, or 79 per cent., were dealt with within three days of receipt.

Optical Benefit

To obviate difficulties which may arise in completing the optical treatment letter being issued by Insurance Societies under the scheme of the Joint Council of Qualified Opticians (see *C. & D.*, February 17, p. 224), the registrar (Mr. J. H. Sutcliffe) points out that:—

(1) There are two kinds of spectacles, those known as (a) "Utility," and (b) those of any other quality or nature whatsoever, which come under the heading of "Alternative charges." The price of a Utility pair should not exceed 5s. 6d. for a steel frame, spherical lenses and case, the sight-testing fee should not exceed 5s., and the additional charge for cataract, cylinders, or spherical cylinders should not exceed 5s., thus making the maximum charge for Utility glasses 15s. 6d. The testing-fee should not in any case exceed 5s. By arrangement with the Approved Societies it is necessary in all cases, whether alternative charges are given or not, for the cost of Utility glasses to be inserted. It is understood that in the case of Utility glasses, as good a quality shall be given as possible.

(2) After quoting for Utility glasses in either Section A or Section B, and if the customer so chooses, alternative charges may be given, where the lenses must be described, such as spherical, toric, etc., and a definite lens price quoted. The frame should be described such as R.G., gold, tortoiseshell, etc., and a definite price quoted. Total these two amounts, deduct 15 per cent., and if there is any sight-testing, add a fee not exceeding 5s. The Approved Society will then consider the case, and decide how much can be apportioned.

Wine Licence Applications

At Eastbourne Brewster Sessions, on March 5, an application for a wine off-licence, made on behalf of Timothy White Co., Ltd., chemists, for their new premises in Terminus Road, was opposed by, among others, the Eastbourne Pharmacists' Association. Mr. Marchant, secretary of the Association, objected to the granting of the licence on the ground that there were already sufficient of such licences. Chemists held seven of them. The barrister who opposed the application on behalf of the Association said that it was the case of a big company coming into the town and taking away the goodwill of small chemists, who lived in the town and

had their interests there, and did not take their profits away to a head office out of the town. The licence was granted.

At Lincoln Licensing Sessions, on March 8, when there were applications for wines and sweets licences from Mr. R. S. Giles, chemist and druggist, High Street, and Mr. W. Rayner, West Parade, the question arose as to whether medicated wines included Burgundy and invalid port. The chairman said the question as to what was and what was not medicated wine had caused the magistrates a good deal of trouble. Broadly, it was to be assumed medicated wine was wine with some drug added by the hand of man, whereas Keystone Burgundy and invalid port were natural wines. The licences were granted subject to the rigid condition that nothing but artificially medicated wines should be sold. An inquiry was made as to whether chemists who had stocks of Burgundy and invalid port would be allowed to dispose of them on undertaking not to procure a further supply was answered in the negative.

At Hanley adjourned Licensing Sessions, on March 8, Mr. S. G. Challinor, chemist and druggist, Stoke Road, applied for the unconditional renewal of his wine licence. Practically every other chemist in the town had given an undertaking to sell only medicated wines under their wine licences, but at the annual Licensing Meeting last month Mr. Challinor was not prepared to do so. Accordingly the Justices directed the Chief Constable to give notice of objection to the renewal of the licence. One of the grounds of the present objection was that the licence was not required. The real reason of the objection, as disclosed in a letter written to Mr. Challinor by the Clerk to the Justices on February 2 was that they required him to give an undertaking that only medicated wines would be sold by him in future. It was submitted that, as this licence had been granted for twenty years, it should be differentiated from those granted more recently. A petition, bearing some 200 signatures, was presented in favour of the renewal of the licence. The Chief Constable said he was directed by the Justices to give notice of objection to the renewal of the licence. The only grounds upon which he could do so were (1), that, having regard to the character and necessities of the neighbourhood and the proximity of other licensed houses, the licence now held was unnecessary; and (2), that in the interests of the public the licence was not desirable. "I feel myself in an extremely awkward position," continued the Chief Constable. "in having to put this objection before you, as I feel that I have absolutely no grounds. It is purely a question of policy for your Worshipships, and you are entitled to use your own personal knowledge of the neighbourhood." Mr. Challinor was eventually granted a licence on undertaking to confine his sales to medicated wines. At the same sessions a similar licence was granted to Mr. F. Keen, chemist and druggist.

Licences have also been granted to the following applicants:—Mr. A. Crompton, chemist and druggist, Ashton-under-Lyne; Ekins & Fisher, chemists, St. Albans; Mr. G. E. Revill (Revill's Drug Stores (Sandown), Ltd.), Sandown, Isle of Wight; Mr. J. H. Skitt, chemist and druggist, Ramsgate; Mr. S. J. Whitfield, chemist and druggist, Murton.

Contracts

The following tenders have been accepted by the bodies named:—

Burton-on-Trent Guardians.—Robinson & Sons, Ltd., lint and wool.

Grantham Town Council.—Whysall & Son, chemists, drugs, etc.

Isle of Wight Guardians.—A. Millidge & Son, Newport, drugs.

Birmingham

A mother of ten children was sent to gaol for a month with hard labour for shoplifting.

Measles have become epidemic in some parts of Birmingham, 534 new cases and seven deaths being reported.

An interesting display of a method of extinguishing fires was recently given in Birmingham. The material used was methyl bromide, and is the subject of a patent.

The National Trades and Industrial Exhibition, to be held at Bingley Hall, March 19 to May 12, will be opened by the Lord Mayor at 3 p.m. on the former date.

The Birmingham Town Clerk is to meet representatives of the Commercial Travellers' Association with the view of expediting the settlement of suggestions made by the Association to the effect that outside porters who attend on commercial travellers should be licensed, wear a distinctive badge, and have a set scale of charges.

Sir Eric Geddes, speaking at the annual general meeting of the West Midland Branch of the Federation of British Industries at Birmingham on March 13, stated that the country was being taxed out of existence. The future of this country is wrapped up in trade, and it was imperative for industries to consult together, to study its common difficulties, and to place their considered views before the Government. During the past year a fairly substantial recovery in trade took place, and we exported nearly 70 per cent. of our 1913 exports, due to a general improvement of conditions throughout the world.

Hull

Mr. R. D. Allen, secretary of the Hull Pharmacists' Association, is now progressing slowly but surely.

Trade among chemists in Hull has improved but slightly and many are preparing confidently for a good photographic season to make up for the period of bad trade.

The Hull Pharmacists' Association propose writing to the Retail Pharmacists' Union thanking them for the steps they are taking with regard to the doctors' criticisms of dispensing.

Taking up the movement which is at present on foot to enlighten the public as to the methods used in dispensing, a local pharmacy has set apart a window for the display of pharmaceutical apparatus. Pill making is one of the operations illustrated in detail.

A local publication, "Nature," has this month a long article, entitled "Botanical Survey and Ecology in Yorkshire," in which mention is made of the good work done for botany by Mr. James Fraser Robinson, who instructs pharmaceutical students in botany at the Hull Technical College evening classes.

Leeds

Professor A. Smithells, F.R.S., a former examiner to the Pharmaceutical Society, has been reappointed Pro-Vice-Chancellor of Leeds University.

A convention of opticians is to be held in the city on April 11, under the auspices of the Yorkshire Optical Society. Among the matters to be discussed is the supply of spectacles to insured persons under the scheme of the Joint Council of Qualified Opticians (*C. & D.*, February 17, p. 224) and the recent report of the Ministry of Health on the causes of blindness (*C. & D.*, II., 1922, p. 860).

Lecturing on synthetic drugs recently, Professor J. B. Cohen, Leeds University, spoke of the "great difference" between the methods used in the scientific study of drugs and those employed in the manufacture of so-called patent medicines, which are more often than not mixtures of little value, except to the proprietor, who sells them to a credulous public at exorbitant prices. The Government afforded no protection against the exaggerated claims made for these concoctions, and in spite of the report of a Royal Commission, published in 1914, strongly advocating some stringent form of Government control, no legislative measure had yet been introduced.

Leicester

Some traders in Leicester do not seem so keen on shopping weeks as previously. Mr. G. E. Marfitt recently stated, that whereas a number of people benefited by last year's effort, there were many who did not, and he did not think the same amount of support would be forthcoming this year.

Dr. N. I. Spriggs, in the course of a discussion on business ideals at the Leicester Rotary Club, on March 12,

referred to patent-medicine advertising. He said that most patent medicines were quite harmless when they were not quite good; but when one came to medicines guaranteed to cure consumption, diabetes and cancer, many were not only fraudulent, but did great harm by inducing people to put off treatment until too late. He lately came across some quite expensive pills (about a shilling each) advertised to cure diabetes, and upon analysis they were found to consist only of sugar.

Liverpool

When "dispensing errors" are being "boosted" as newspaper stunts or by persons who have never made either a mistake or anything else, an ex-President of the Liverpool Chemists' Association exhibits to *bona fide* inquirers a prescription which, needless to state, he did not dispense, winding up with "liq. arsenicalis to eight ounces."

The annual report of the Newspaper Press Fund, showing subscriptions of £16,000 for the past year, and investments of £102,000, with a membership of 3,300, and an invitation to the Diamond Jubilee Dinner, at which H.R.H. the Prince of Wales will preside, is causing some pharmacists to draw comparisons with the Pharmaceutical Society's Benevolent Fund.

Mr. Henry Peet recalls, states a writer in the "Liverpool Daily Post" of March 10, a personal adventure at the cannon's mouth. In his native town in Lincolnshire a field piece had been cast and mounted at the local foundry to celebrate the marriage of the then Prince and Princess of Wales. With a schoolmate, Mr. Peet ventured to stand on the wheels of the cannon as it was being loaded, for about the sixth time, by the foundry foreman. The cannon burst, and the foreman lost both his eyes and one leg, while several other men were seriously, but none fatally injured. Mr. Peet and his boy friend, though cast to the ground, were unhurt.

Manchester

A very effective and striking window-show was observed in a suburban chemists' window this week; on a background of green crepe paper the words "sulphur soap" were formed with tablets of the soap wrapped in bright yellow wrappers.

At the Salford dinner, recently held, there was quite a number of Manchester chemists, including the President of the Manchester Pharmaceutical Association (Mr. Simmons), three past-presidents (Messrs. Bates, Cleworth and Nidd), and the secretary (Mr. T. Miller). All voted the function a great success.

A North Manchester pharmacist had an amusing experience recently. A little boy about six years of age asked him if he could tell whether the mark on his face was a ringworm. The chemist said it was, and he was to tell his parent that he would require some paint for it. The child departed, but in a few seconds was back again and said, "Mr. Chemist, you did not say what colour of paint we had to get."

Chemists, in common with other shopkeepers, are overlooking the fact that early-closing regulations are still in force. It may be of interest to note that a well-known official of the local association received a visit lately from a police officer; a customer who was being served at 8.5 p.m. was asked what the purchase was, and the chemist (who, as it happened, had not committed any offence) was warned.

A correspondent of the "Manchester Evening Chronicle" has sent a pointed letter to that paper on the subject of the present controversy, in the course of which he sums up the position by saying that: "The chemist, in general, has proved himself, in the eyes of the public, though working under the greatest difficulties—long hours, cramping regulations, etc.—to be more than worthy of the confidence placed in him."

The Manchester Chemists' Golfing Society has arranged a very interesting list of fixtures for the coming season, and many valuable trophies are being given by generous donors. The opening match will take place at the North Manchester Golf Club links on April 4, when the first prize will be given by Mr. A. J. Pidd, President of the

Society. There will be a "Home and Away Match" with the Liverpool Golfing Chemists, and a special match (particulars of conditions not yet decided upon) is being arranged between the two societies for prizes given by D. and W. Gibbs, Ltd.

The advertisement headed "The Chemist" that has appeared in three or four of the Manchester daily papers during the past week-end has given great satisfaction to the craft, who felt that someone in authority should take up the cudgels on their behalf and let the public know the real facts of the case. The Retail Pharmacists' Union are to be complimented on the stand they have taken; the pamphlets they have sent out are greatly appreciated by their members, and the advertisement which appeared in the papers has been cut out and pasted on the windows of several chemists' shops.

At Manchester County Police Court, on March 6, Richard James, seaman, pleaded "Guilty" to having attempted unlawfully to obtain 2oz. of cocaine. It was stated for the prosecution that on February 5 The Veno Drug Co., Ltd., Chester Road, received a letter from the accused, beginning, "This is strict private and secret. Can you supply me with two ounces of cocaine." Among James's personal property on board his ship was found a similar letter, with the same error in spelling, to a London chemical house. The defence was that the affair was a joke. The accused was sentenced to a month's imprisonment.

Miscellaneous

POISON-LICENCE APPLICATION.—F. J. Hill, Station Avenue, Caterham Valley, has applied to the Surrey County Council for a licence under Section 2 of the Poisons and Pharmacy Act, 1908.

IN THE COURTS.—At Westminster Police Court, London, on March 10, Herbert John Goffin, alias Bond (65), described as a beauty doctor and specialist, was sentenced to twelve months' imprisonment in the second division for obtaining money by false pretences. It was stated for the prosecution that the accused had been carrying on "beauty shops" in Hammersmith Road, W., and in Market Street, Manchester.—At Thames Police Court, on March 13, L. A. Choy was sentenced to six months' hard labour for being in unlawful possession of cocaine and opium.

PRINTED PAPER PACKETS.—The Postmaster-General announces that on March 19 the hours up to which printed paper packets that are prepaid $\frac{1}{2}$ d. only may be posted, for despatch on the day of posting, or for local delivery by the first post of the day following, will be extended throughout the country. The latest time of posting at a head office, or other principal post office, will be not earlier than 4.30 p.m. In certain districts a somewhat later hour will be fixed. In London the latest time of posting will be 4.30 p.m. at the principal offices, and from four p.m. to 4.30 p.m. at the less important offices and letter-boxes.

ALLEGED DEALINGS IN "DANGEROUS" DRUGS.—At the Guildhall Police Court, London, on March 9, Harold Montague Fogden Humphrey (32), cutlery manufacturer, 57 Basinghall Street, E.C., was charged on a warrant with having, on January 31, unlawfully offered to procure morphine, heroin and cocaine for a firm in China. Formal evidence was given by a police inspector, who, cross-examined by Mr. Ronald Powell, said he knew that the defendant had been in the City for some years. Mr. Powell said he wished it made perfectly plain that this was not one of the many cases of selling drugs in the street for an immoral purpose, but of supplying cocaine to China. His client had never had any drugs in his possession and had never dealt in drugs in this country. The magistrate adjourned the case for a week, bail in £500 being allowed.

PRIVATE ARRANGEMENT.—A meeting of the creditors of Mr. Thomas William Stone, manufacturing chemist, trading as Stone & Tinson, Crews Hole, St. George, Bristol, was held recently. A statement of affairs showed liabilities amounting to £4,493 0s. 3d. There were fully secured creditors for £311 0s. 8d., and other liabilities (£1,100), not expected to rank for dividend. The assets consisted of stock-in-trade, plant

and machinery estimated to produce £425, cash in hand £155 7s., rolling stock and barges estimated at £600, various properties put down at £580, amount due from National Provident Institution £175, and a surplus from security £161 7s. 4d., making a total of £2,599 5s. 10d., from which had to be deducted £181 10s. 3d. for preferential claims. It would appear that the business was established about sixty-five years ago, and was carried on by Mr. Thomas Stone until his death a few years since. It was then continued by his two sons, Francis Joseph and Thomas William. Mr. F. J. Stone died in December 1915, when an account was prepared showing that his capital in the business amounted to £2,757 6s. 5d., and this was left in the business by his widow. A composition of 6s. 8d. in the £, payable in cash, was offered, and after some discussion this was accepted. The following are among the creditors:—Products Corpn., Ltd., £79; The United Alkali Co., Ltd., £287.

Irish News

Belfast

Belfast District Asylum Committee invite tenders for medicines before March 21.

Solport Bros., Ltd., druggists' sundriesmen, Goswell Road, London, E.C.1, have opened a showroom, of which Mr. Herbert Roberts is in charge, at 118 Royal Avenue.

A deputation from the Ulster Retail Drug Trade Association and the Belfast Chamber of Trade waited upon the Public Health Committee of the City Corporation on March 7, regarding the Corporation's proposals to obtain Parliamentary sanction for the establishment of municipal night dispensaries. After the deputation had retired it was decided to refer this question and other proposals in the Bill to a sub-committee for discussion with the Law Committee. It is hoped an agreement will be reached. The U.R.D.T.A. was represented by Mr. J. C. Culbert, M.P.S.I., who is also President of the Chamber of Trade, and who was the principal spokesman. Other members of the trade present were Messrs. W. J. Hardy, R. I. Edwards, R. W. McKnight, and James Tate. Mr. Matthew McDonald, Ph.C., who is a member of the City Corporation, also attended.

A further conference took place in Belfast, on March 12, between the representatives of the Ulster Retail Drug Trade Association and the subcommittee appointed by the Public Health Committee with reference to the clause in the Corporation Bill seeking power to run municipal dispensaries in Belfast. The trade was represented by Messrs. J. C. Culbert, W. J. Hardy, R. W. McKnight, James Dundee and R. I. Edwards. The subcommittee agreed to take a recommendation to the principal Committee.

Scottish News

Edinburgh

Inspectors of all kinds are busy calling on pharmacists at present.

The football match between Pharmacy and Corstorphine Wednesday, on March 7, ended in a goalless draw.

The Secretary for Scotland, through the Board of Agriculture, has agreed to meet the obligations of the Royal (Dick) Veterinary College and to provide an annual sum to meet the financial deficit between income and expenditure.

To enable another series of inoculation tests to be carried out with regard to the investigation into the grass sickness among horses, the directors of the Highland and Agricultural Society have decided to make a grant not exceeding £400.

The office-bearers appointed for the ensuing year at the annual meeting of the Edinburgh and East of Scotland Section of the Society of Chemical Industry were:—*Chairman*, Dr. Alexander Lauder; *Vice-Chairman*, Dr. H. E. Watt; *Secretary and Treasurer*, Mr. W. T. H. Williamson, B.Sc.

The first of this season's outings of the Edinburgh Chemists' Golf Club will be a competition over Baberton golf course, Juniper Green, on March 21, starting not later than 2.30 p.m. Members wishing to take part in the hole-and-hole competition must notify the secretary not later than March 21.

A letter appearing in Scottish newspapers from Mr. J. Rutherford Hill points out that the accusations of Dr. Trotter (see *C. & D.*, March 3, p. 296), who was formerly medical officer of health in Paisley, have created the erroneous impression that the dispensing by chemists in Scotland was referred to. The letter continues: "It is important to note that he is now medical officer of health for the Islington district of London, and was referring only to that district, regarding which we have no knowledge."

Glasgow

At a meeting of the Scottish Section of the Society of Dyers and Colourists, held in Glasgow on March 9, Mr. I. E. Weber lectured on "Hydrogen Peroxide and Bleaching."

The annual dinner of Fairy Dyes, Ltd., was held at the Grosvenor Restaurant on March 10. Mr. Shoesmith, managing director, presided over about 100 guests, who, following the repast, engaged in dancing until a late hour, all spending a most enjoyable evening.

Mr. James Moir, chemist and druggist, Victoria Road, Crosshill, has been elected honorary President and a life member of Queen's Park Bowling Club, of which he has been a member for the past thirty-six years. He is a keen bowler, and has taken an active part in dances between the Club, his rink on one occasion winning the much-coveted Scottish Cup.

The musical and dramatic sections of the Glasgow Pharmacy Club held a social evening in the Regent Tea Rooms on March 6. There was a good attendance of members and friends. After tea had been served a programme of song and story was given by Misses Archer and Russell, and Messrs. Dickson, Gowans, Mackenzie, and Whitesmith. The company took part in dances between the songs and readings, Mr. Dickson acting as M.C. Votes of thanks were accorded to all who had contributed to the success of the evening.

New Books

Inglis, J. G.—*The "Rapid" Decimal Calculator and Universal Reckoner*. 5½ in. by 3½ in. 1s. 6d. London: Gall & Inglis, 31 Henrietta Street, W.C.2 (and Edinburgh). [This, the seventy-seventh reckoner issued by this firm, is designed chiefly for decimal, multiplication, exchange and percentage calculations: other uses are also suggested by the publishers.]

Minutes of the Dental Board of the United Kingdom. Vol. 1. 8½ in. by 5½ in. Pp. 168. 2s. 6d. London: Constable & Co., 10 Orange Street, W.C.2. [Contains the official record of proceedings of the Dental Board and its committees from December 7, 1921, to December 31, 1922, together with six appendices comprising standing orders, accounts, warning notice, examination reports, etc.]

De Keghel, M.—*Les Encres, les Cirages, les Colles et leur préparation*. 6½ in. by 4½ in. Pp. 384. 10 francs. J. B. Baillière et Fils, 19 rue Hautefeuille, Paris. [A small compendium of practical information concerning the manufacture of inks, boot polishes and leather dressings, and adhesive agents. Each section is prefaced by a few short chapters outlining the characteristics of each of these three categories of preparations, the materials entering into their composition, and the basic principles underlying their manufacture. The preparations in each section are described systematically, according to the chief constituent forming the base of each group of products, numerous formulas being given, with details as to the actual process of manufacture. Compressed within a small space, this work contains much useful information of practical value to those interested in the manufacture of these kinds of products.]

Legal Reports

A Disputed Claim.—In the King's Bench Division of the High Court, London, on March 7, the Pharmacists' Mutual Supply Association, Ltd., Newton Abbot, sued Mr. E. G. Joint, commercial traveller, Hanwell, claiming a sum of money which plaintiffs said had been advanced to defendant on account. Mr. R. Fortune, for plaintiffs, said the point in dispute was that Mr. Joint said he was entitled to £5 a week salary, whereas plaintiffs said that defendant was entitled to £1 a week salary, plus 7½ per cent. commission on wholesale orders and 12½ per cent. on retail orders. After hearing the evidence, his Lordship held that the plaintiffs had not made out their cause of action, and gave judgment for the defendant, with costs.

Sale of Food and Drugs Acts.—At Westminster Police Court, London, on March 13, Mr. John Ernest Jewell, chemist and druggist, trading as Heppell & Co., 5 Buckingham Palace Road, Westminster, was summoned for selling borax containing 100 parts of arsenious oxide per million. Mr. J. C. Rotton prosecuted for the Westminster City Council, and Mr. C. H. Kirby appeared for the defence. Mr. P. A. E. Richards, F.I.C., public analyst, stated that he examined the sample submitted to him, and found it to contain the proportion of arsenious oxide mentioned. In reply to Mr. Kirby, witness said he did not draw any distinction between borax and purified borax. The great majority of the samples submitted for analysis had complied with the British Pharmacopœia. Mr. Kirby: Do you think everything in the Pharmacopœia ought to be of the Pharmacopœia quality or not?—Yes, I think so. Do you say that anybody going into a chemist's shop and asking for chalk should get the quality known as prepared chalk?—I think so. The Magistrate: I should certainly expect to get it. Mr. Richards, in further reply to Mr. Kirby, said that the sample of borax submitted to him contained twenty times as much arsenic as it should have done. He agreed that a great deal more borax was used for commercial purposes than for medicine. It was usually bought at other than chemists' shops, and charged for at a cheaper rate. Mr. Kirby submitted that there was no case to answer, because the inspector had stated that he did not tell the purchaser to ask for purified borax, and had explained that he simply wanted borax. As he got what he asked for, Mr. Kirby failed to see how there could be any complaint. It was quite clear that there was more than one quality of the article. The magistrate decided that on the facts the purchaser got what he asked for, and dismissed the case.

Weights and Measures Act.—At West Ham Police Court, on March 14, Mr. Harold Mitchell, chemist and druggist, 56 Woodgrange Road, Forest Gate, E., was summoned for using a certain measure which was not marked with the verification stamp in accordance with the provisions of Section 29 of the Weights and Measures Act, 1878. Mr. C. H. Kirby appeared for the defence. An inspector under the Act said that on March 2 he went into the defendant's shop and asked for 2 oz. of friars' balsam. Witness gave defendant a bottle, and defendant poured into it some friars' balsam. After paying for it, witness said he was an inspector, and asked defendant, "How did you arrive at the quantity?" Defendant replied, "Well, I took it to be a 4-oz. bottle, and half filled it." Witness turned the balsam supplied into a 2-oz. measure he had with him, and showed the defendant that the quantity supplied was only 10 fluid drachms instead of 16 fluid drachms. He had visited the defendant's shop before that night, and told defendant that the purchase of friars' balsam was made because a purchase previously made was found to be short. By Mr. Kirby: Friars' balsam was a viscous fluid, which left remains in the vessel, but it could be drained out fairly well. Mr. Mitchell, giving evidence, said he had been in business forty-seven years and had never had a complaint made against him before. Lately he had been taking business easily. When he served this balsam he estimated the quantity, and did not use the measure because of the viscous

nature of the fluid. Mr. Kirby submitted that the defendant was not guilty of the allegation that he used a measure in this case. If the bottle the customer brought was a measure, then the inspector was an accessory in the offence. The measure was stipulated in the Section to be the property of the offender. The magistrate held that the defendant, by taking this bottle from the inspector, made the bottle a measure, and in that way he committed the offence alleged. There would be a fine of 20s.

Hair-dye Application Claim.—In Marylebone County Court, London, on March 9, the action in which Elizabeth Agnes Bovis, Park Avenue, Willesden, claimed £100 damages from Charles Benbow, hairdresser, High Road, in connection with a hair-dyeing operation (*C. & D.*, February 3, p. 144), was concluded. Mrs. Benbow now gave evidence to the effect that during the past four years she had had 700 or 800 hair-dyeing customers, and there never had been any complaint. When the plaintiff spoke to her about the effects of the hair dye, she noticed that her forehead was inflamed and there was moisture at both sides of the face. When witness inquired about it, plaintiff said, "Don't be alarmed, it is not your fault." It was only then she learned that plaintiff had her hair dyed previously with henna. Plaintiff did not at that time complain of feeling pain. In cross-examination, witness said she told plaintiff that all hair dyes were dangerous. Witness was not sufficiently skilled to know when there was skin eruption on the head. Counsel said the instructions with the article were that, where there was a predisposition to skin eruption, the Inecto should not be used, and then there were later instructions which were more explicit. Witness said she did not read the later instructions. Counsel argued that the defendant, having known what the instructions were four years ago, ought still to have known them. His Honour: I cannot be presumed to have knowledge of a fact I knew four years ago. Counsel: If a hairdresser holds himself out to carry through a certain process in the way of hair-dyeing, he ought to know, or procure the aid of someone who does know, when a person is predisposed to skin eruption. His Honour: Then you contend that a hairdresser must be a medical man, or you would have to go to a skin hospital. Counsel: No, but he should get someone with medical knowledge and experience. His Honour: It might be the duty of a hairdresser to examine the head in search of dandruff, but I don't think you can carry those duties into the region of medicine. His Honour, in giving judgment, said that in his view defendant was not liable. As regarded the question of warranty, that depended entirely on the conversations which took place and which were in conflict. He came to the conclusion that there was nothing said by Mrs. Benbow that could have been understood to be a warranty. There was no evidence to show that the dye was dangerous in itself—dangerous for use on people with normal skins, but it was admittedly dangerous to use on people who had a predisposition to skin irritability or who had pimples or dandruff in the hair at the time the article was applied. If, as counsel said, a hairdresser must have a specialist on the premises to examine people who were about to have their hair dyed, it did not hold out much prospect for the business of a hairdresser. He gave judgment for the defendant, with costs.

Fines for Inaccurate Dispensing.—At Tottenham Petty Sessions, on March 8, Oliver & Co., Ltd., chemists, 487 High Road, Tottenham, were summoned for selling a compound drug—namely, a mixture purporting to be the *mistura ferri aperiens* of the Formulary of the Middlesex Panel Committee—which was not composed of ingredients in accordance with the demand of the purchaser, but contained an excess of iron sulphate and was deficient in magnesium sulphate. Mr. R. A. Robinson prosecuted for the Middlesex County Council, and Mr. C. H. Kirby appeared for the defendants, who pleaded "Guilty." Mr. Robinson stated that the aperient iron mixture of the Middlesex Formulary should contain 3 gr. of iron sulphate and 30 gr. of magnesium sulphate in each ½ oz. of the mixture. The county analyst certified, however,

that the mixture as dispensed contained 4 gr. of iron sulphate and 18.5 gr. of magnesium sulphate in each $\frac{1}{2}$ oz., which was equivalent to an excess of 33 per cent. of iron sulphate and a deficiency of 38 per cent. of magnesium sulphate. The iron sulphate tended to have a constipating effect, and the mixture would not have the full aperient effect required by the prescriber; there had evidently been a serious want of care and accuracy in dispensing the prescription. Mr. Kirby stated that the prescription had been dispensed by an assistant, who had not referred to the Formulary, but had trusted to his memory. This assistant was subsequently got rid of, and the firm would take every care to ensure accuracy in the future. The Bench imposed a fine of 10s., with costs.—At Tower Bridge Police Court, London, on March 14, Mr. Alfred Barnett, chemist and druggist, Southwark Park Road, S.E., was summoned for having dispensed two mixtures which the analyst's certificate showed to be deficient respectively in sodium salicylate to the extent of 10 per cent. and in quinine sulphate. The defendant pleaded "Guilty" to both summonses. He was fined 40s., with 21s. costs in the first case, and fined 7s. 6d. on the second summons.—At the same court, Austins, Ltd., chemists, Bermondsey Street, S.E., were similarly summoned in respect of two dispensed prescriptions. Dr. Brown, medical officer of health for the borough, said that the quantity of sodium salicylate in the first prescription was less than half what there should have been. Such a deficiency would render the prescription quite useless. The deficiency of quinine in the second prescription was $\frac{1}{10}$ gr. per $\frac{1}{2}$ oz. of the mixture. Mr. Kirby, in defence, said it could not be suggested that defendants had done this with a view to extra profit, for 160 gr. of sodium salicylate cost less than a penny. He suggested that the mistake was due to reference being made on the prescription to the "L.I.P." instead of enumerating the proportions of drugs to be used. The magistrate said it was of the utmost importance that the poorer class should have their medicine dispensed accurately. He imposed a fine of 40s. on the first summons, with 21s. costs, and a fine of 7s. 6d. on the second summons.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

SCOTTISH CHEMICAL CO., LTD. (P.C.).—Capital £3,000. Objects: To carry on the business of chemists, druggists, drysalers, oil and colourmen, etc. The subscribers are: W. Caw, Wellington Street, Greenock, chemist, and R. Ralston.

BUNKER (CHEMISTS), LTD. (P.C.).—Capital £600. Objects: To carry on the business as indicated by the title. The first directors are: G. R. and Mrs. A. A. Nelson, 185 Bedford Hill, Balham, S.W.12. R.O.: 151 Lillie Road, Fulham, London, S.W.

RICHARD LORD & CO., LTD. (P.C.).—Capital, £1,000. Objects: To acquire the business carried on at Tontine Street, Blackburn, as Richard Lord & Co., and to carry on the business of manufacturers of and dealers in dental and surgical appliances, chemists, druggists, drysalers, etc. R.O.: 14 Tontine Street, Blackburn.

KELLETT'S SALTS, LTD. (P.C.).—Capital £750. Objects: To take over the business of a druggist and drysalter carrier on by H. S. Kellett at 89 Chapel Street, Salford. The directors are: J. Markus, 16 The Polygon, Lower Broughton, Salford; H. S. Kellett, 87 Chapel Street, Salford; and M. Davies, 353 Cheetham Hill Road, Manchester.

H. W. BROWNING, LTD. (P.C.).—Capital £300. Objects: To take over the pharmacy of H. W. Browning carried on at 14 North Hill Terrace, Plymouth, and to carry on the business of chemists, druggists, stationers, patent medicine proprietors and vendors, wine merchants, etc. The first directors are: H. W. and Mrs. Norah Browning, 9 Montrose Terrace, Plymouth. R.O.: 14 North Hill Terrace, Plymouth.

MATTHEWS & WILSON, LTD.—The capital has been increased to £16,000 by the creation of £6,000 7 per cent. preference shares of £1 each.

PARKE'S DRUG STORES, LTD., announce the payment on March 20 of preference dividend for the half-year ended February 28, at the rate of 6 per cent. per annum, less income tax.

SOUTHALL BROS. & BARCLAY, LTD.—The report of the directors for the year ended December 31, 1922, states that the accounts, after providing for bad debts, depreciation, corporation profits tax, income tax, and directors' remuneration, show a balance of profit of £30,806 6s. 4d. To this must be added £12,375 17s. 10d. carried forward last year, making a total of £43,182 4s. 2d. Out of this has been paid an interim dividend on preference shares of £2,750, leaving a balance of £40,432 4s. 2d., which the directors recommend should be appropriated as follows: Second half-year's dividend on preference shares at the rate of 5 per cent. per annum (paid January 1, 1923), £2,750; year's dividend on ordinary shares at the rate of 10 per cent. per annum, free of income-tax, £8,600; bonus of 6d. per share on ordinary shares, free of income-tax, £2,150; to be carried to reserve, £6,000; balance to be carried forward, £20,932 4s. 2d.; making a total of £40,432 4s. 2d. Subject to the passing of the necessary resolutions, it is the intention of the board to distribute, by way of bonus, one ordinary share for every four ordinary shares held, fractions to be discharged in cash at the rate of 20s. per complete share. In order to provide the necessary capital for the purpose, it is proposed to transfer £21,500 from the company's internal reserve (formed in accordance with Article 104) to the credit of profit and loss account. In October last Mr. E. D. Barclay, son of the late Sir Thomas Barclay, was appointed to a seat on the board; he retires, and, being eligible, offers himself for re-election. Mr. T. Barclay and Mr. E. W. Mann also retire from the Board, but, being eligible, they offer themselves for re-election.

FINE CHEMICALS, LTD.—In Dublin, on March 2, before Lord Justice O'Connor, in the action of Boileau & Boyd, Ltd., v. Fine Chemicals, Ltd., Mr. Moonan, B.L., applied on behalf of the defendant company for an order staying proceedings in the action pending the voluntary winding-up of the company. Counsel moved on an affidavit, stating that the claim of Messrs. Boileau & Boyd was for £213 13s. 3d. On February 26 a resolution was passed by a meeting of the defendant company for the voluntary winding-up of its affairs, and Mr. Walter Couan was appointed liquidator. Counsel had been instructed by the liquidator to apply for an order staying proceedings in the action until the plaintiffs' claim was proved in the winding-up proceedings, and also for an order staying proceedings in four other actions in which writs had been issued against Fine Chemicals, Ltd., viz., J. F. Keatinge & Sons, Ltd., £392 2s. 11d.; Stokes & Co., £89 4s.; Thomas Tyrer & Co., Ltd., £31 19s. 4d.; Price's Patent Candle Co., Ltd., £86 2s. 9d. Lord Justice O'Connor made an order staying the proceedings in the actions pending the result of the voluntary winding-up.—On March 6, the action of Stokes & Co. v. Fine Chemicals, Ltd., was mentioned to Mr. Justice Samuels. Mr. Moonan applied on behalf of the defendants for an order that the judgment signed in default of appearance on February 28, and the execution issued thereon, be set aside for irregularity, on the ground that an appearance had been duly entered by the defendant company before the signing of the judgment, which was for a sum for goods sold and delivered. Counsel said it was a case of an appearance being entered in the action and of a judgment being entered in default of appearance, the appearance being entered without any notice of the judgment, and the judgment being entered without any notice of the appearance. Mr. Justice Samuels made an order setting aside the judgment, and allowed the plaintiffs £6 6s. costs.

The Customs duty on perfumery and toilet preparations and articles used in their manufacture on importation into Mauritius has been raised from 12 per cent. to 25 per cent. *ad valorem*.

Trade with the New Turkey

THE tenacious opposition offered by Turkish Nationalists to provisions limiting Turkey's freedom of action in economic matters is explained by their desire to shake off that foreign financial control which for decades has placed the country in a position of international financial tutelage. Under the old *régime* practically only two expedients were available for replenishing the chronically empty coffers of the Turkish treasury, both of which involved the surrender of certain privileges. Foreign financial assistance was obtainable either by mortgaging specific State revenues derived from monopolies, coupled with some measure of foreign participation in the administration of such pledges, a precaution deemed advisable by the lenders in order to guarantee the fulfilment of the obligations undertaken by the Sublime Porte, or by the granting of concessions, *i.e.*, of exclusive rights to individuals or corporations to exploit certain undertakings in the Turkish Empire. In the days of Abdul Hamid the granting of concessions was used as a political weapon, as a means of fostering jealousy and suspicion among the members of the European Concert, in order to extract from rival concession hunters not only the maximum financial benefits, but political advantages as well. Between 1909 and 1914 the customs tariff was repeatedly advanced as a basis for negotiations, but the Powers refused to entertain the alterations suggested by Turkey. Under the Capitulations, the Turkish customs were based on a uniform 11 per cent. *ad valorem* levy on such articles as were dutiable, 3 per cent. of the duty thus collected being destined to the administration of the Ottoman Public Debt. With the proclamation of the abolition of the Capitulations by Turkey following her entry into the Great War, the *ad valorem* scale of duties was replaced, in 1916, by a new autonomous tariff based on a system of specific charges for individual articles or categories of goods. The Armistice of Mudros reintroduced the Capitulations, and coincidentally the old 11 per cent. *ad valorem* customs tariff. However, a new factor intervened, destined to alter materially the internal political structure of Turkey, and also its international status in a manner not contemplated by the terms of the Treaty of Sévres. The growth of the Nationalist movement under Mustapha Kemal Pasha, and its consolidation to a *de facto* government in Angora, at first a rebel movement outlawed by the impotent holders of office in Constantinople, whom it swept aside on assuming the sovereign authority in Turkey consequent on its military successes against the Greeks, has created an entirely new situation, inasmuch as the new Turkey of Angora refuses to be regarded—and treated—as a nation of lower status than its Western neighbours. One of the first important measures decreed by the Angora Government was the enforcement, in 1920, of the customs tariff of 1916, but increasing the charges therein specified fivefold. These charges have since been levied throughout the parts of Asia Minor under the rule of Angora, but in places in Allied occupation the 11 per cent. *ad valorem* tariff continued to be the sole recognised schedule of charges. Indeed, the order issued by the Government in Angora to the Turkish customs in Constantinople to apply the new customs tariff, *viz.*, the rates in the schedule of 1916, multiplied by five, from November 6, 1922, without previous notification to the Allies, and in defiance of the existing *modus vivendi*, figures among the first conflicts which took place between the Allied occupation authorities and the representative of the Angora Government, following the assumption by the latter, as far as conceded by the Allies, of the sovereign power over Constantinople. The policy of the Nationalist Government is frankly protectionist, with the avowed aim of fostering industrial enterprise, which at present in Turkey is still in an embryonic stage, and may be said to exist chiefly in the well-intentioned imagination of interested parties. The following are some of the charges specified in the new Turkish customs tariff actually being levied on goods imported through places where the officials of Angora are in undisputed authority; the charges are in piastres for one kilogram:—

Anilin dyes, alizarin..	..	..	..	13½	piastres.
Aspirin ..	..	..	..	195	"
Bismuth salts ..	..	..	..	93	"

Boric acid, borax ..	..	..	..	3½	piastres.
Chloroform ..	..	..	..	4½	"
Cod-liver oil ..	..	..	..	4½	"
Condensed milk ..	..	..	..	20	"
Drugs, such as barks, flowers, leaves, roots	..	..	..	10	"
Essential oils for preparing Eau de Cologne	..	..	..	190	"
Glycerin ..	..	..	..	10	"
Hydrastis, Ipecacuanha, Jalap, Senega ..	..	..	..	40	"
Indigo ..	..	..	..	30	"
Infants' foods ..	..	..	..	30	"
Iodine ..	..	..	..	166	"
Mineral acids..	..	..	..	2	"
Perfumed soaps ..	..	..	..	30	"
Perfumes, Eau de Cologne .. (gross weight)	..	..	..	900	"
Price lists, show cards, signs ..	..	..	..	2½	"
Sodium bicarbonate ..	..	..	..	1	"
Solution of ammonia conc. ..	..	..	..	2½	"
Tea ..	..	..	..	25	"
Toilet powders, tooth pastes ..	..	..	..	290	"
Vaseline ..	..	..	..	3	"
Quinine salts ..	..	..	..	duty free.	
Text-books, periodicals ..	..	..	..	duty free.	

The new tariff also deals with the importation of proprietary preparations, which, if included in a pharmacopœia, are admitted without formality on paying an *ad valorem* duty of 25 per cent. Specialities not included in an official pharmacopœia may not be imported into Turkey; however, the public health department is empowered to authorise the importation and sale of proprietary medicines belonging to this category on application being made for a permit, in which case they are subject to an *ad valorem* charge of 25 per cent., the duty being levied on the net amount of the invoice, plus freight and insurance charges. Perfumes, toilet powders, soap, tooth pastes and ampoules are charged on their gross weight. *i.e.*, including cartons, etc. Alcohol is a government monopoly, and all medicinal preparations containing alcohol will in future be supplied exclusively through the medium of the State laboratory, the use of such preparations being subjected to a stringent control. The political constellation of the parties, economic, financial and other considerations, indicate that the tariff charges will be liable to modifications as circumstances may dictate. Already the Turkish newspapers report that the restrictions imposed on the importation of certain goods, and the total prohibition of admission of all articles classed as "luxuries," have been abolished, and that goods classed in both categories may now be imported on payment of twelve times the rate fixed in the tariff.

Business Changes

BROBNER, LTD., chemists, have opened a pharmacy in Cudworth Road, Willesborough.

MR. H. CHARD, chemist and druggist, Ipswich, has removed from 30 Westgate Street to 7 Providence Street.

Gazette

Bankruptcy Acts

ADJUDICATION

HARRISON, C., 9 Coleherne Terrace, Earl's Court, London, chemist.

RECEIVING ORDER AND ADJUDICATION

JONES, W., 2 Bridge Street, Aberayon, chemist.

Deeds of Arrangement

Laidlaw, Daniel McGoun, chemist and optician, 34 Southbourne Grove, W. Southbourne, and 61 Paisley Road, Bournemouth. Dated February 13; filed February 19. Liabilities, unsecured, £523; estimated net assets, £742. Trustee: F. J. Webb, 1 Yelverton Road, Bournemouth. The following are among the creditors:—S. Maw, Son & Sons, Ltd., £36; W. Sutton & Co., Ltd., £44; Wright, Layman & Umney, Ltd., £27; Chemists' Supply Co., Ltd., £30; Randall & Wilson, Ltd., £23.

Festivities

Liverpool Chemists' Annual Dinner

LIVERPOOL Chemists' Association have revived their annual dinner, which was held at the Exchange Station Hotel, on March 14. The President (Mr. Ashcroft) occupied the chair, and there was a large attendance, representative of wholesale and retail. Before opening the official programme, the President tendered Mr. W. J. Williams a tribute to his services to the Association, especially referring to his work in connection with the Conference at Liverpool in 1920, and congratulating him on being about to take up a new appointment in London. Proposing "The Pharmaceutical Society of Great Britain," Mr. Ashcroft said he was proud to be President of the First Liverpool Branch of the Society. One of the former secretaries of the Liverpool Association was happily present, and all hoped that he was restored to health. Mr. J. H. Robinson advocated some years ago that pharmacists should advertise, telling the public what services they rendered, and how they were trained and qualified. Now the Retail Pharmacists' Union had commenced such advertising, he hoped the time would soon come when every pharmacist would be compelled to enrol in the Pharmaceutical Society. In responding, Mr. Moreton Parry assured pharmacists that the Pharmaceutical Council was carefully watching the proposed amendments of law relating to the sale of poisons. Mr. T. E. Lescher proposed "The Liverpool Chemists' Association," which, he said, had its roots deep in tradition, and was founded by Lancashire men strong in character. He coupled the toast with the wish "May it flourish root and branch." Mr. Harold Wyatt responded.

Peterborough Association Dinner

THE annual dinner of the Peterborough and District Association of Pharmacists was held on March 8, when the chief guests of the evening were Mr. A. R. Melhuish (a member of the Council of the Pharmaceutical Society), Mr. J. Allan, F.C.S. (a director of the Erasmic Co., Ltd.), and Dr. J. Stanley White, Ph.C. (Parke, Davis & Co.). Mr. Ailsby (President), submitted the toast of "The Pharmaceutical Society." Mr. Melhuish, in responding, said that things pharmaceutical were far from tranquil. He referred to the Dangerous Drugs Amendment Bill, which had passed the second reading in the House of Commons, and had gone on to Grand Committee, and said that the Council proposed to put down a certain amendment. But the Council's minds had been exercised on things which transcended in importance even that Bill—he referred to the great question of organisation and education. The Council felt that there should be a distinct leaven of higher education than was ordinarily necessary. Mr. C. Hamson and Mr. C. Bayley, in responding to the toast of "The Peterborough Association," dealt with the action of the Town Council in granting licences to unqualified people. Dr. White, in responding on behalf of the visitors to the toast of "The Visitors and Commercial Travellers," said that the medical man who had had a pharmaceutical training was the man who would make his mark in medicine.

London Golfers Dine

THE annual dinner of the London Chemists' Golfing Society was held at the Connaught Rooms, W.C.2, on March 8. By one of the unfortunate chances incidental to the month, the President (Mr. W. B. Trick, J.P.) was kept at home with a severe chill, and had to content himself with the dispatch of a telegram, wishing "all comrades, especially the ladies, a most enjoyable evening." In his absence, Mr. T. Edward Lescher, O.B.E., ex-President of the Society, took the chair, supported at the top table by Mr. E. T. Neathercoat (President of the Pharmaceutical Society), Mr. W. J. Uglow Woolcock, C.B.E. (Association of British Chemical Manufacturers), Dr. Skelley, Mr. and Mrs. H. S. Watson, Mr. and Mrs. A. R. Keith, Mr. and Mrs. Herbert Skinner, Mr. C. P. Winchester (Burgoyne, Burbidges & Co., Ltd.), Major Wigginton (Erasmic Co., Ltd), and other ladies and gentlemen. The spur tables were in charge of Captain H.

Bartlett and Messrs. A. Boyes, C. Macdonald, W. Main, and D. Parry; and among the crowded gathering—crowded as it was, more than seventy applications for tickets had been refused—were Mr. A. R. Arrowsmith, Mr. W. Boyack, Mr. A. H. Cox (Arthur H. Cox & Co., Ltd.), Mr. G. Gibbs, Mr. H. G. Mumford, Mr. L. J. Read, Mr. J. Royle, Mr. Rowland Stagg, Mr. C. Stephens Steven (Eucryl, Ltd.), and Mr. W. P. Want. The dinner itself, though a little late in beginning, fully justified the laudatory remarks current concerning it, and the musical entertainment that followed agreeably filled the interstices of an evening in which speech, song, and even crackers yielded in importance to the bestowal of prizes. The list of the handsome trophies has grown since the previous annual dinner, and now stands (with the names of the winners) as follows:—Sanger Cup, E. Geddes; Burgoyne Cup and Replica, C. Macdonald; "British & Colonial Pharmacist" Cup, H. Marshall; Carmichael Trophy, J. Beattie; Hepburn Shield, W. Main; Captain's Prize, W. Main; President's Prize, C. Macdonald; Arthur H. Cox & Co.'s Prize, C. Macdonald; Eucryl Prize, G. Deeth; Erasmic Prize, J. Beattie; Harker Prize, W. Main; Gibbs' Prize, F. Bell; Mrs. H. S. Watson's Cup, H. Bartlett; Thomson Cup, F. Epps; Hill Cup, D. Parry; Enfield Prize, A. Ingram; Sanger Cup Replica, G. Deeth; Club Replicas, J. Jones, A. Boyes, W. Duncan; Mr. D. J. Parry's Prize, Mrs. A. Hawkins.



Mrs. H. S. Watson distributed the prizes, the recipients of which managed, with one exception, to ignore insistent calls of "Speech!" The oratory associated with the toast-giving was tactfully concise. Mr. Neathercoat, in proposing the toast of "The London Chemists' Golfing Society," raised a shout of laughter by blandly remarking that he understood that, out of 125 members of the Society, 121 had paid their subscriptions. He welcomed sporting associations in the pharmaceutical community, and was glad that the Society had remembered the Pharmaceutical Society's Benevolent Fund. Captain Bartlett, in reply, said that the Society was still progressing numerically, and that additional prizes had been promised by the Vinolia Co., Ltd., and Mr. Turner (Methylating Co., Ltd.). He trusted that a match of ladies versus gentlemen would be arranged in the near future. Mr. Boyes gave "The Ladies and Visitors" in an eloquent speech, the conclusion of which was delivered in a tongue presumably native to the Grampians, or some other inaccessible spot north of the Border. Mr. Woolcock, responding, congratulated the Society on inviting ladies, told a capital story, and gave an urbane description of a method of playing golf that vastly amused his audience. The final toast, that of "The Chairman," was proposed by Mr. Carmichael, and briefly acknowledged by Mr. Lescher; after which the energetic and popular secretary, Mr. Deeth, who had organised the evening's proceedings, was accorded, on the motion of Captain Bartlett, a supplementary toast with musical honours. The illustration we have adopted is a reproduction, on a reduced scale, of the back of the dinner card, to which was added a model scoring card, filled with neatly-turned and practicable maxims.

Associations' Winter Session

Aberdeen.—The eighty-fifth annual meeting of the Aberdeen Pharmaceutical Association was held in Robert Gordon's Technical College on March 7. Mr. Jas. Farquhar presided. The annual report and accounts were submitted. It was again agreed to give prizes to the pharmacy students at Gordon's College. The office-bearers were elected as follows:—*President*, Mr. Jas. Farquhar; *Vice-President*, Mr. A. P. Wallace; *Treasurer*, Mr. Wm. Reid; *Secretary*, Mr. H. M. Dugan; *Auditor*, Mr. W. F. Hay. Messrs. Simpson and Reith were added to the Executive. Mr. A. F. Dugan was appointed representative to the Chamber of Commerce. Mr. Hughson and Mr. Wm. Turner were elected members.

Belfast.—A committee meeting of the Ulster Retail Drug Trade Association was held in Belfast on March 6, the President (Mr. W. E. Wilson) in the chair. Following on the committee's propaganda work against municipal trading, a report was presented of a conference held with representatives of the Ulster Medical Society as well as their Council's further consideration of the following views submitted to them:—

Our members contend that there has been no public demand for an increased service, and we feel that the claim of the Corporation is greatly exaggerated. It is well known that quite a number of pharmacists live over their premises, or within a short distance, who are prepared to give service at night or on Sundays (as, indeed, they have been doing), and this is considered amply sufficient for the needs of the city. The other proposals referred to existing hospitals. A memorandum of chemists who sent in a return setting out Sunday hours, and whether resident or otherwise, has been prepared and sent to each medical practitioner in the city for their information. This, the Ulster Medical Society considers, will place the night pharmaceutical service of the city on a satisfactory basis.

Mr. Hardy, a member of the subcommittee appointed to interview the members of the Public Health Committee, reported that the members attended along with a deputation from the Belfast Chamber of Trade, and received an attentive hearing. The deputation was introduced by Councillor McDonald, M.P.S.I., a member of the Public Health Committee, to whom a vote of thanks was accorded for his services, to which he suitably replied. Another conference is arranged to take place shortly, and it is expected that the clauses in the Bill now before the Northern Parliament affecting the drug trade may be altogether deleted or amicably amended.

Guild of Public Pharmacists.—A lecture on *Wireless* was given by Mr. A. Greenwood Watkins, chemist and druggist (member of the Royal Institution) before the Guild of Public Pharmacists, on March 7, at 17 Bloomsbury Square, London, W.C., Mr. F. A. Hocking (President) in the chair. The first half-hour was spent in listening to music received on a four-valve set and a loud speaker, lent by L. McMichael, Ltd. No outside aerial was used; instead, a Ducon was fitted to the electric light. Mr. Watkins prefaced his remarks with a reference to the various uses of wireless, which he described as "the invisible link between the transmitter and the receiver." He described the alteration of amplitude produced by the microphone in transmitting, the tuning for the reception of the altered waves, using crystals or valves, and their reproduction of the original sounds in the telephones. By the use of mechanical models and of diagrams, the principles of oscillation, wave-length, production of Hertzian waves, magnetic disturbance in wire coils and current production were explained, tested by a galvanometer, and, by means of an electrocope, the release of electrons in a light-bulb was demonstrated. Diagrams illustrating the gradual improvement made on the original form of circuit and apparatus for eliminating disturbances and producing the best results were drawn by the lecturer, his running comment being of great assistance to the understanding of an intricate subject. Votes of thanks were accorded to the lecturer, Messrs. McMichael, the Pharmaceutical Society, and the chairman.

Hull.—At a meeting of the Hull Pharmacists' Association on March 6 Mr. W. G. Bennett gave an address on

Ambitions. In the forefront of his ambitions, he said, was the raising of the status of the chemist. Their proper sphere was the dispensing and preparing of drugs and galenicals, rather than the distribution of sundries and proprietary articles. He deplored the laziness of the average chemist when it came to preparations in the *Pharmacopœia*, and as for the man who refused to tackle a prescription because of its difficulty or trouble, the speaker could not understand why he qualified. He maintained that they were more than mere poison vendors; their business should be more pharmacy and less a combination of grocery and toilet preparations. Personally, he derived no small pleasure from making the various B.P. preparations. He was aware that the preparation of certain articles was out of the question for chemists, under the existing conditions, but the alteration of these conditions was part of his ambition for pharmacy. They should realise that they belonged to a craft of importance, and that the least they could do was to see that their conduct was worthy of it. His second ambition was to see the scope of pharmacy widened. He was looking forward with anticipatory pleasure to the time when they would be able to prepare germ cultures as they did mist. alb.; to the time when the microscope would be as often in use as the pestle and mortar. Simple clinical analyses should form part of their usual routine. They trained themselves to do it. In this connection he also aimed to see the local educational facilities increase greatly. He wanted to see regular classes for analyst's microscopy, for culture preparation and for sanitation. His third ambition was for a full control of their *pharmacopœia*. Mr. Bennett went on to outline a Utopian scheme for the local Association. He thought the Association should possess a social club, museum and library. After the lecture an interesting discussion arose on the refusal of the Pharmaceutical Society to recognise the botany classes at the Hull Technical College. Some members who had studied botany in these classes under the present teacher, Mr. Fraser, spoke appreciatively of his instruction. With regard to the Poisonous Substances Bill, the members discussed the vindictive penalties proposed for any infringement of regulations made under the Dangerous Drugs Act, and it has been decided to communicate with the Pharmaceutical Society and with the Retail Pharmacists' Union, drawing attention to the risks to which chemists will be exposed. A vote of sympathy was passed with Mr. R. D. Allen, Beverley Road, the Association secretary, in his severe illness. He is now, it was stated, on the road to recovery. A discussion on the training of apprentices followed, and in acknowledging the vote of thanks the President said it was his great ambition to be on the Council of the Pharmaceutical Society, and the members assured him that nothing would please them more.

London (N.).—A meeting was held on March 13 at the Central Pharmacy Club, the President (Mr. Arthur H. Jenkin) in the chair. The Secretary reported on matters relating to the Retail Pharmacists' Union, Pharmaceutical Society, the annual dinner, and various social events. A discussion arose on these matters, and in the R.P.U. section it was agreed to send as delegates to the conference Messrs. Hearle and Downing, with power to act. The President gave an account of the visit to officials in Islington on the subject of dispensing prosecutions and the publicity which arose from Dr. Trotter's letter to "The Lancet" (*C. & D.*, March 3, p. 296). He laid great stress upon the need for reaching the highest standard of accuracy. Mr. Skinner (secretary) reported what action he took immediately the case arose. He pointed out that this had proved the acid test of the recently-formed branches, and it must be confessed that neither the Pharmaceutical Society nor the Retail Pharmacists' Union had thought it advisable to get in touch with the local secretary. In these circumstances he (Mr. Skinner) took action, and visited various officers in order to get a meeting of those directly concerned. He gave details which at present could not be published, but intimated that further meetings would be held when the present cases were finished. Mr. Skinner added that he had reported the matter to the Pharmaceutical

Society's Council, which endorsed the action he had taken, and it was for the Association to get this method of sampling and analysis put on a proper basis. Mr. Hearle (member of the committee) gave his impressions of the discussion with the officers. The matter was still *sub judice*; the medical officer had prejudiced these cases, and, as the names were not known, he had damaged the whole of the chemists in Islington and the neighbouring boroughs. An interesting discussion arose, and personal experiences on the subject were given by Messrs. Anderson, Daniel, Downing, Davidson, Watson, Sayers, Cracknell, Rawlins, and Keith. On the motion of Mr. Downing, a vote of thanks was accorded to Messrs. Jenkin, Hearle, and Skinner for the steps they had taken on behalf of the chemists.

National Association of Women Pharmacists.—A largely attended meeting of the National Association of Women Pharmacists was held in London on March 12, Miss E. K. Hughes (President) in the chair. Miss Andrews (employment secretary) gave a brief report of the work of the employment bureau, stating that, although there was still a number of qualified women unemployed, it was satisfactory to find that owing to the advertisements inserted by the Association in the pharmaceutical Press several women have obtained work during the last few weeks. Mr. F. H. Glew, O.B.E., then delivered an address on *Radium and its Uses*. Mr. Glew explained that perhaps the most important use of radium is its therapeutic use, which use he illustrated by coloured plates. After the Armistice, radium to the value of £70,000—just enough to fill a thimble which he exhibited—was left in the hands of the Government, and it was his duty to make this up in a suitable form for loan to the various hospitals throughout the country. While gold is worth 2d. a grain, radium costs £1,000 a grain. Another practical use for radium is the testing of diamonds, which remain unaltered by it, while other stones, such as white sapphires, become coloured; this was shown in a ring. Other interesting exhibits were a Strutt's radium clock (demonstrating the continuous emission of electricity from radium), and an ordinary laundry flat-iron, on the upper surface of which was affixed a small block of willemite—silicate of zinc; on placing a small lead box containing radium underneath the iron, the bottom of which was over an inch thick, the willemite became luminous. Miss Edmond proposed and Miss Borrowman seconded a vote of thanks to Mr. Glew.

York.—A general meeting of the York and District Chemists' Association was held on March 1, Mr. W. P. Saville (President) in the chair. Mr. A. W. Lupton (secretary of the Leeds Chemists' Association and of the Leeds Branch, R.P.U.) spoke on the advisability of the York chemists forming a branch of the Retail Pharmacists' Union. Mr. Lupton divided the subject into several heads, which included: (1) "Factors necessary for the formation of branches"; (2) "support and finance"; (3) "functions of the branch"; and (4) "N.H.I. affairs"; impressing on his audience the need for mass-action and uniformity of mind. Benefits, such as C.D.A., stock-taking, advertising, and debt collection were also discussed. In conclusion, Mr. Lupton suggested a resolution asking the R.P.U. Executive for recognition. Mr. W. P. Saville, supporting Mr. Lupton, thanked him for all the work he had put in on the subject, and said he considered the formation of a branch or section the only thing to do. Mr. F. G. Hines took rather an opposite view to Mr. Lupton, saying that, as far as the N.H.I. was concerned, the R.P.U. was a failure. He objected to a branch being formed without carefully going into the matter, and thought it should be left over until the next session. After several questions had been answered by Mr. Lupton, Mr. Hines proposed that the forming of a branch of the R.P.U. in York should be left over until the annual general meeting, when it should be brought before a full meeting and discussed in detail after the members had had time to think the matter over. Mr. Bowness seconded, and this was carried without an amendment being proposed. Mr. Hines moved a vote of thanks to Mr. Lupton for his kindness in coming to York, and Mr. Birks seconded.

Poisonings

THE following cases of fatal poisoning, among others, have been recorded since our last report:—

The inquest at Newport on the body of Jennie Morgan, which, as mentioned in our last week's issue (p. 324), occupied several days, terminated on March 9. The husband of the deceased mentioned aspirin tablets and a lotion "from the chemist" in the course of his evidence, adding that the lotion smelt very strongly and made everyone in the room feel "very bad." Eventually the jury found that Mrs. Morgan had died from arsenical poisoning, and returned a verdict of "Wilful Murder" against a son, William Melville Anthony Morgan, who was brought before the local magistrate on March 10, and again on March 14.

An inquest was held recently at Loughborough on the body of William Horsley, an unemployed ex-soldier who, the evidence showed, died in a local hospital after drinking carbolic acid. Mr. Frank Davis, chemist and druggist, assistant to Mr. A. B. Martin, chemist and druggist, Market Place, said that the deceased came into the shop and asked for a bottle of carbolic acid. He was supplied with an 8-oz. bottle of crude acid, and in reply to witness's question as to what it was for replied "For disinfecting purposes." The coroner, in the course of his summing up, remarked that the chemist's assistant saw nothing suspicious in his customer's demeanour, but he (the coroner) thought the assistant, in selling such a large quantity of poison, should have observed more closely the person to whom he was selling it. The man had obviously destroyed himself, and he (the coroner) was of opinion that he was not responsible for what he did.

At Leicester, on March 9, an inquest was held on the body of Benjamin Samuel Bourne, aged fourteen, apprentice to Mr. Frederick George Blockley, chemist and druggist, Bassett Street. It was stated that the lad was found dead in the shop on the previous Wednesday night, and had left a number of letters of an unusual character. One was his "last will and testament." Another note contained two entries indicating the time at which he took poison. Then followed what was apparently an attempt to write his signature. A third letter, addressed to his employer, contained the following passages:—"You will have to cancel my indentures now. . . . I am sorry. I have betrayed your trust. I wonder what is in store in the world beyond. I shall try to communicate with you. I am sorry. I have had to force the doors, but I have only damaged the mirror." The evidence of the lad's father was to the effect that his son failed in his Oxford Local examination last year, and had been working very hard for this year's examination. Mr. Blockley, the employer, said that the deceased had been with him as an apprentice for about eleven months. He had proved very satisfactory; being a bright, painstaking, intelligent boy, and anxious to get on, witness took a great interest in him. On the previous Tuesday evening, while stocktaking, witness missed a bottle of tablets. The boy finally said, "I have them," and took the bottle from his pocket. At 7 p.m. the shop was closed and the other assistant left. Witness then had a quiet fatherly talk with the boy. He did not scold or get angry. He pointed out to the lad that it was a wrong thing for him to do, and that he would have to speak to his father about it if it occurred again. It was only a little thing, and the lad did not appear to make a trouble of it. He told witness that he was possibly weak-willed. Witness had never noticed anything abnormal about the boy, except that he was occasionally sullen. A police officer stated that acting on information received he visited the shop just before midnight. There were two medical books on the table, one of which was opened at a page relating to hydrocyanic acid. Two doors had been forced. Dr. Platt certified that death was due to hydrocyanic-acid poisoning; and the coroner, in returning a verdict of "Suicide while of unsound mind," said it was a very deliberate suicide. He was satisfied that there was nothing in the matter of the tablets to drive the deceased to such an act, for Mr. Blockley had handled the affair in a fatherly way; nor was the trouble over the examination sufficient in the case of a normal boy.

Retail Pharmacists' Union

Leicester.—A general meeting of the Leicester Branch of the Retail Pharmacists' Union was held on March 7. Various resolutions were passed for submission to the Conference on March 21, and Mr. H. A. Martin was elected as the official delegate for the Branch. A letter from headquarters on the sale of foods by welfare clinics was considered, and regret was expressed that unanimity was not obtained from the packers of proprietary lines as to the supply of their products in plain packets to the clinics. The effect of the Rent Restriction Acts was brought forward by Mr. Marfitt from the Leicester Chamber of Trade, and it was unanimously decided to take suitable action. The new scale for dressings was brought to the notice of the meeting.

Mansfield.—At a meeting of the Nottinghamshire Branch held at Mansfield on March 7 Mr. J. A. Pegg was appointed delegate to the R.P.U. Conference in London. Several letters dealing with R.P.U. matters were also read and discussed, satisfaction being expressed by the members present with the business services of the R.P.U. Two resolutions were passed for the consideration of the R.P.U. Conference.

Portsmouth.—Mr. A. B. Sparrow took the chair at the annual meeting of the Portsmouth Branch, held on March 7. Mr. F. H. Ruoff, secretary, gave a brief report of the previous year's events; the membership stands at 47, one member having died since the last meeting. Mr. Atterbury was elected delegate to the early-closing conference, and it was resolved he should support the limiting of Sunday trading to necessities only. Mr. Ruoff was appointed the delegate to the next R.P.U. conference. The election of officers resulted as follows:—*Chairman*, Mr. W. R. Atterbury; *Vice-Chairman*, Mr. W. H. Brown; *Treasurer*, Mr. W. L. Egerton; *Secretary*, Mr. F. H. Ruoff. In view of the large area and the number of adjacent towns included in the Branch, notice of motion was given to increase the number of the committee. The regular procedure by ballot resulted in the election of three Portsmouth members, Messrs. C. H. Baker, J. W. Rhodes, and A. B. Sparrow. The meeting did not favour the buying section of the Association being placed under the auspices of the R.P.U. Branch. Co-operative buying, which has worked profitably for a long time, has been concerned with non-protected articles; and as many important lines have recently gone on the P.A.T.A., its activities will necessarily be reduced.

Annual Report

THE following extract comprises the chief portions of the draft of the second annual report of the Retail Pharmacists' Union, to be presented at the annual meeting on March 21:—

Membership.—The membership has now reached the stage when further large increases will be somewhat difficult to obtain. With the co-operation of the members, the Executive hope to secure the support of the comparatively small number of pharmacists who are not members.

Organisation.—The number of branches formed during the year is very gratifying, since they have been formed voluntarily by the members in the districts concerned, and are all self-supporting. There are now 104 branches which form the nucleus of a very satisfactory local organisation. These branches are now to be linked together in each group area by means of a group executive. A proposal to this effect will be discussed at the annual conference, and if the scheme is approved it will be put into operation immediately.

Past Year's Work.—13,200 inquiries on various subjects have been answered, 647 special expert opinions have been obtained, 27 trade-marks have been registered, and much information on this subject has been given.

Debt Recovery.—The work of collecting debts on behalf of members has increased during the past year, and the percentage of recoveries is very satisfactory, being one in three.

Stock-taking.—Both the co-operative and complete stock-taking schemes have been widely used by members, and this department is proving a very great boon.

Accountancy.—A large number of members have availed themselves of the special facilities offered in this connec-

tion, and the R.P.U. cash book is rapidly becoming the most popular method of book-keeping for chemists.

Advertising Services.—The Executive have instituted during the past year special services in regard to chemists' showcards, advertising blocks and window displays. Experts have been engaged for each of these.

National Health Insurance.—The most important work of this department of the R.P.U. during 1922 was the negotiations with the Ministry of Health regarding the payment for prescriptions. A reduction had to be accepted, though your Executive did not agree and protested against the issue of the revised and reduced scale of fees. It is satisfactory to note, however, that there are no stock-mixture fees. A very important change in the N.H.I. dressings was suggested by the Ministry of Health; they desired higher standards and better packing. These were the subject of negotiations, and ultimately the "B.P.C." standards were adopted. Pharmacists should realise that test prescriptions are likely to be more frequent in future than in the past, since the standards of dressing have now been corrected.

Dangerous Drugs Act.—The attention of wholesale houses has been directed to the desirability of placing a special mark upon goods coming within the Dangerous Drugs Act Regulations. A very ready response was received from all the leading houses.

Combined Price List.—Your Executive during the early part of the year were approached by the proprietors of the Minimum Retail Drug Price List with a view to its adoption as the official list of the R.P.U. After lengthy negotiations it was arranged, in conjunction with the P.A.T.A., that the "Anti-Cutting Record" should be combined with the Minimum Retail Price List and published under the title of the "Combined Price List." A very satisfactory financial arrangement was concluded under which members receive a copy, free of charge, each month, and which at the same time relieves the R.P.U. of practically all financial responsibility. The R.P.U. Supplement involves a small additional cost, but it is extremely valuable as a means of communication with members month by month.

Policy of the R.P.U.—Your Executive have maintained the policy of co-operation and assistance for members individually and collectively. Your Executive desire to express their appreciation of the support they have received and which has enabled them to complete a very successful year's work.

Income and Expenditure Account

		Expenditure					
		£ s. d.					
"Anti-Cutting Record"	.. .. .	44	19	3			
"Year-Book"	.. .. .	59	9	9			
Cleaning, lighting and heating	.. .. .	106	18	4			
Collection and carriage of scripts	.. .. .	342	14	1			
Books, stationery, etc.	.. .. .	155	0	3			
Salaries and wages	.. .. .	2,916	5	9			
Printing	.. .. .	70	15	2			
Insurances	.. .. .	48	7	9			
Supplement and advertising	.. .. .	91	2	6			
Repairs and decorating	.. .. .	35	16	5			
Travelling expenses:—		£	s.	d.			
Organisation	.. .. .	55	6	1			
Committee	.. .. .	467	19	1			
					523	5	2
Hire of meeting-room	.. .. .		1	11	6		
Telephone service	.. .. .		14	12	3		
Rent, rates and taxes	.. .. .		470	0	0		
Postage and receipts	.. .. .		190	4	4		
Furniture depreciation	.. .. .		35	6	11		
Sundries	.. .. .		0	5	0		
Legal charges	.. .. .		2	2	1		
Conference of delegates	.. .. .		158	14	1		
Auditors' fees	.. .. .		25	4	0		
					5,292	14	7
Excess of income over expenditure carried to balance sheet	.. .. .		1,225	17	0		
					£6,518	11	7
		Income					
		£ s. d.					
Business services	.. .. .	61	3	2			
Subscriptions	.. .. .	2,132	8	3			
Donations	.. .. .	8	11	0			
Levies	.. .. .	4,292	3	6			
Interest	.. .. .	14	10	11			
Sundry receipts	.. .. .	9	14	9			
					£6,518	11	7

SPANISH OLIVE OIL.—The olive crop of the Seville district for 1922 is estimated to yield 3,280,000 gallons, compared with 5,600,000 gallons in 1921 and 9,600,000 gallons in 1920.

The Business of a Chemist and Druggist

Draft of a chemists' propaganda pamphlet, which subscribers are invited to criticise and to send suggestions for improving. Further details are given on p. 374 of this issue. The figures at the side are intended to help in referring to the position of suggested alterations or additions.

ITS ORIGIN AND SCOPE

As a rule shopkeepers confine themselves to the distribution of goods collected from wholesale sources, and the public is well qualified to judge of the value of the articles purchased. In the case of drugs and chemicals, however, it is not usually possible to form an opinion of quality by mere inspection: it requires chemical and physical tests to decide their identity, properties, and quality. Many drugs and chemicals have potent properties which make the ability to identify them of great importance. Hence the State has laid it down that the chemist must be specially educated for his business, and has imposed statutory restrictions on the sale of potent drugs. These laws have been made for the protection of the public from accidents by poisoning, while the opportunities of obtaining poisons directly for suicidal purposes or for murder are greatly diminished by the formalities which have to be carried out by the chemist when he sells poison.

ANTIQUITY OF THE CHEMIST'S BUSINESS

The business of the chemist is a very ancient one, although it is only within the past three hundred years that the sale of drugs and the dispensing of medicine have been made into a separate calling. Formerly the physician employed apothecaries to compound the medicines he ordered for sick persons, but when the apothecaries became medical men the dispensing of prescriptions was transferred to chemists and druggists, who, as sellers of chemicals and drugs, understood the precautions needed in preparing medicines. The sale of drugs was originally carried on in this country by spicers or pepperers, who dealt in all kinds of produce, but in time drugs especially were sold by the druggist, and foods by the grocer. The legal title "chemist and druggist" is an interesting historical combination describing the preparers and vendors of the vegetable drugs of Galen and the chemical substances introduced into medicine by Paracelsus.

ROMANCE OF POPULAR REMEDIES

Many of the medicines which chemists sell to-day originated centuries ago and are compounded on the same general principles as when they were first introduced.

Hiera picra is probably the oldest compound pharmaceutical preparation in existence; it has been sold for at least 2,000 years.

Vinegar of squill, used for coughs, is said to have been invented by Pythagoras, who lived in the sixth century before Christ.

Diachylon plaster was devised by Menecrates early in the first century of our era.

Syrup of poppies, employed as a sedative, is due to Themison, who lived at Rome in the reign of Augustus Caesar.

Basilicon ointment was invented about the same time by Celsus.

Cold-cream was first made by Galen, who died A.D. 200.

Cochia pills are made from a recipe nearly a thousand years old.

Laudanum and opodeldoc are preparations due to Paracelsus, who was born in the fifteenth century.

The recipes for many of the older remedies were very complicated: one celebrated compound—theriakon—contained sixty-one ingredients. Most of the simple drugs mentioned in the Bible, such as myrrh, juniper, nitre, and saffron, are still in every-day use.

CHEMISTS' DISCOVERIES

The training which chemists receive has fitted them for original researches, and in consequence chemists have made many discoveries of benefit to the human race. Quinine was first prepared by Pelletier and Caventou, who were in business in Paris as pharmacists. Scheele, who discovered oxygen simultaneously with Priestley, had a pharmacy at Köping, Sweden. Liebig, who devised the process for making meat extract, was apprenticed to a pharmacist; and so were Muspratt and Gossage, pioneers in the British alkali industry. Sir Humphry Davy received his early training in an apothecary's shop. Pasteur too began life as an apothecary's apprentice. The late Sir William Ramsay and Thomas Tyrer, past-Presidents of the Society of Chemical Industry, frequently stated that the training received in a pharmacy is a great asset to a scientific investigator.

THE PROFESSION OF PHARMACY

A permanent organisation of chemists and druggists was first established in 1841, when the Pharmaceutical Society of Great Britain was founded with the object of advancing chemistry and pharmacy, promoting a uniform system of education for those who should practise, and protecting those who carry on the business of chemists and druggists. A Royal Charter was granted in 1843, and an Act of Parliament in 1852 gave the Society the power of examining, licensing, and keeping a register of practitioners in pharmacy, so as "to prevent ignorant and incompetent persons from assuming the title or pretending to be pharmaceutical chemists or pharmacists." The sale of poisons was subsequently regulated by the Pharmacy Act, 1868, and the Poisons and Pharmacy Act, 1908, and entrusted to chemists and druggists. The Pharmaceutical Society is for the profession of pharmacy the examining body and the licensing and prosecuting authority. It is also an educational and scientific corporation.

LICENCES TO PRACTISE PHARMACY

Every chemist's shop is required by law to be conducted by a qualified person. To carry on the business of a chemist and dispenser of medicines it is necessary to pass the Qualifying examination of the Pharmaceutical Society. A standard is laid down for the preliminary education of those who enter pharmacy, evidence of having passed such examinations as the London Matriculation, the Oxford and Cambridge Local examinations and the College of Preceptors' being required before candidates can enter for the Qualifying examination. They must also be of age, have fulfilled the requirements of a long curriculum that includes tutelage in a chemist's shop or approved public institution and courses at special colleges of pharmacy. The examination covers a wide range, the subjects being chemistry, physics,

botany, materia medica, dispensing, pharmaceutical jurisprudence and prescription-reading. It is in two parts, each occupying two days, and the scope of the examinations is both practical and theoretical. Those who pass are entitled to use the descriptions chemist, druggist, and pharmacist. They may afterwards take the Major examination, the subjects of which include further work in chemical analysis and organic chemistry and obtain the title pharmaceutical chemist. Those who are members of the Pharmaceutical Society can place the letters M.P.S. after their names.

THE DISPENSING OF MEDICINES

The ideal which modern legislation aims at is the separation of the practice of medicine from the dispensing of remedies. The requirements of the medical curriculum do not enable doctors to acquire more than a superficial knowledge of pharmacy, as it is considered that the time of medical students should be devoted to the acquisition of the special knowledge needed for the diagnosis and treatment of disease. When the National Insurance Act was passed in 1911 it was ordained that the supply and dispensing of the medicines provided under the Act should be entrusted to chemists except in special circumstances. The doctor has in this way unlimited choice of medicines and is not restricted in the remedies he wishes to prescribe. The number of prescriptions dispensed for insured persons in Great Britain exceeds thirty millions per annum. It is probable that a similar number are dispensed by chemists for persons who do not contribute to health insurance funds. In the voluntary hospitals qualified chemists dispense about four million prescriptions annually. Chemists are the only dispensers of medicines who are bound to make up prescribed remedies according to the formulas of the British Pharmacopœia. This ensures that the medicines ordered by medical men and required by the public will be of the same strength wherever dispensed in the United Kingdom.

THE SALE OF POISONS

When certain medicines are dispensed by chemists the Pharmacy Acts require that special precautions shall be taken to prevent the possibility of accidental poisoning. There are also about a thousand drugs and chemicals which may only be dispensed and sold by chemists under statutory restrictions. The sale of the more potent poisons can only be made to persons known to the chemist, and the purchaser is required to sign his name in the poison-sale book. The records the chemist is required by law to keep are (1) a prescription-book, (2) a book in which the sale of arsenic is registered in conformity with the Arsenic Act, (3) a register of poisons under the Pharmacy Acts, and under the Dangerous Drugs Act registers for (4) cocaine and ecgonine, (5) morphine, (6) diamorphine, (7) medicinal opium, and (8) raw opium. The conditions of sale vary according to the strength of the poison, the uses to which it is to be put, and the person who makes the purchase. Some drugs may only be sold when ordered in a medical prescription.

OTHER FUNCTIONS OF THE CHEMIST

It is estimated that a chemist in an average business has in stock about ten thousand articles. He has, in addition to dispensing medicines and acting as a check on doctors' prescribing, to meet

the demands of the public for simple and compound remedies as well as chemicals used for other than medicinal purposes. There are numerous surgical appliances and sick-room requisites, and special foods for infants and invalids. The sale of approved remedies for simple ailments also forms part of a chemist's business. The scientific training which the chemist receives specially fits him to sell agricultural and horticultural chemicals and photographic requirements, also electrical and wireless equipments. Many take up analytical work, and others possess qualifications in sight-testing and the supply of spectacles. It follows that the chemist must keep abreast of every new development in medicine and the allied sciences. The pharmacy is the recognised emporium for toilet articles and perfumery, the technical training the chemist has received being utilised in the preparation and sale of these articles. In all these cases the public has the advantage of ready access to a man who not only is able to advise in many difficulties which crop up in every-day life but is always willing to place his knowledge at the service of his customers.

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Wednesday, March 21

Pharmaceutical Society of Great Britain, Glasgow Pharmacy Club House, 165 Hill Street, Garnethill, Glasgow, at 3 p.m. Establishment of local branch. The scheme will be explained by Mr. A. A. Dick, member of the Executive of the North British Branch.

South-West London Chemists' Association, Belmont Hall, Clapham, at 7 p.m. An "At Home," with games and dancing. Tickets (3s. each) from members of the Council and Miss Borrowman, 17 The Pavement, Clapham.

Ulster Retail Drug Trade Association, 11 Waring Street, Belfast, at 3 p.m. Annual meeting.

Liverpool Pharmacy Club, Yamen Café, Bold Street, at 7 p.m. Dance. Tickets (5s. 6d. each) from members of the committee or Mr. F. A. Boggiano.

Portsmouth Pharmacists' Association, New Mikado Café, Elm Grove. Whist-drive. Tickets (3s. each, including refreshments) from Mr. W. H. Bown, 50 Victoria Road, North, Southsea.

Newcastle-on-Tyne and District Pharmacists' Association. Whist-drive.

Thursday, March 22

The Institute of Ophthalmic Opticians, Hotel Cecil, Strand, London, W.C.2, at 6.30 p.m. Dinner and dance.

Chemical Society, Burlington House, Piccadilly, London, W., at 4 p.m. Annual general meeting. Hotel Cecil, Strand, W.C., at 7 p.m. Anniversary dinner.

Bubbles Social Club, Hotel Great Central, London, W.C., at 7 p.m. Dance. Tickets (6s. 6d. each, including refreshments) from the secretary, A. & F. Pears, Ltd., 71-75 New Oxford Street, W.C.

North London Pharmaceutical Association, Canadian Hall, High Road, Tottenham, at 7 p.m. Carnival dance and social.

Bradford and District Pharmaceutical Association, Central Café, at 8.30 p.m. Address by Mr. F. G. Hines, Ph.C., York.

Birmingham Pharmaceutical Association, Technical School, Suffolk Street, at 8.30 p.m. Dr. J. Newton Friend on "Colloids."

Friday, March 23

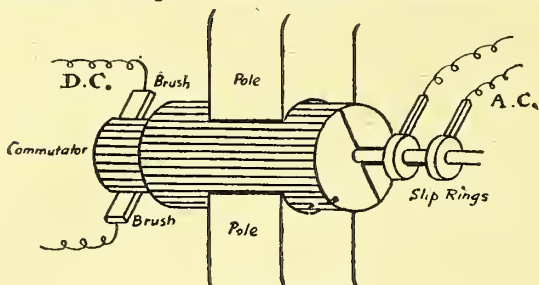
Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W.1, at 9 p.m. Discourse by Sir Ernest Rutherford, LL.D., D.Sc., F.R.S., on "Life History of an Alpha Particle from Radium."

CUBAN INDUSTRIAL ALCOHOL.—A matter which has been engaging attention in Cuba is the manufacture of industrial alcohol from molasses, the production of which in 1922 amounted to about six and a half million gallons. The greater part of the two thousand motor vehicles in Havana, mostly Fords, are now using denatured alcohol manufactured locally and sold side by side with petrol, under the name of "Espiritu Motor."

Practical Wireless Telephony

XIV. Charging Accumulators from Alternating Current

THE charging of accumulators from alternating current involves certain difficulties. The five principal methods are: (a) Mechanical rectifier; (b) rotary converter; (c) motor generator; (d) electrolytic rectifier; (e) valve rectifier. A mechanical rectifier, in principle, consists of a rotary synchronising device by which the alternating phases are so timed to a collecting commutator that only one phase, either positive or negative, is received by the leads to the storage battery. This is a somewhat complicated device and requires much attention to see that it functions correctly. The rotary converter is a compound motor which can also act as a dynamo. In a two-pole form the field magnets are shunt wound. One end of the



ROTARY CONVERTER

armature is fitted with the usual brushes acting on the armature bars at the maximum polarity position and taking or delivering D.C.; the other end is fitted with slip rings, which are connected with points on the armature 180° apart and taking or delivering A.C. If the armature is caused to rotate by an engine the device acts as a dynamo and yields D.C. at one end and A.C. at the other. In the case of a motor generator this is a combination of an A.C. motor coupled either by shafting or belt to a shunt-wound dynamo yielding D.C. These methods are open to the objection that the plant is somewhat expensive to lay down, and unless it can be kept well employed in charging batteries as a business proposition would not be worth the initial expense. The electrolytic method is comparatively inexpensive, as it requires no costly machinery, and can be left without any attention. The current must be reduced to forty volts or less, either by a choking coil or a transformer, the latter preferably, and the reduced current passed through a rectifier consisting of a lead and an aluminium plate supported about one and a quarter inch apart in a nearly saturated solution of pure ammonium phosphate. Plates having a surface of

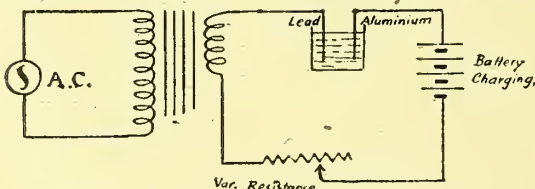


DIAGRAM OF CIRCUIT OF ELECTROLYTIC RECTIFIER

about eight square inches may be screwed to an ebonite block (or a piece of wood treated with paraffin wax or shellac) provided with proper terminals and carried on the edge of a battery cell or a glass jam pot, the plates dipping into the liquid. The current is conveyed to the lead plate, thence through the electrolyte (ammonium phosphate solution) to the aluminium plate, whence it is taken to the negative end of the battery and then through a resistance, either a radiator or a group of lamps, and back to the transformer. An ordinary bell transformer will yield a half to one ampere, and if low-voltage lamps are included in the circuit to provide the necessary resistance and regulate the amount of current passing, the battery may be

left charging without constant watching. If a heavier current is required, larger plates must be used, but the distance between the plates in the electrolyte should remain about the same, as this gives an internal resistance about equal to that of the accumulator. The last method is by a valve rectifier (the best known is the Tungsar), which consists of a ventilated iron box containing a step-down transformer, yielding about thirty volts, according to the pressure of the supply mains, and a large thermionic valve having a terminal attached to the anode plate. From this terminal the current is taken to apply to a battery for recharging. The appliance on 240-volt circuit will show only about one and a half to two amperes, but when stepped down to thirty-five or forty volts the valve will charge at four or five amperes, and so quickly reduce the time required for charging. While in operation the transformer emits a slight singing sound, which is quite independent of the current used. The importance of the accumulator in valve reception is such that it is false economy to be niggardly in the method of charging. The battery should always be kept at full concert pitch if the listening-in is to be always of the best.

Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (i.e. each including postage) of British patents can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Beryllium.—Compact pure beryllium is obtained by melting in the first place double fluoride of sodium and beryllium and later double fluoride of barium and beryllium, thereupon submitting the molten mass to electrolysis when it reaches a temperature of 1,200° to 1,300° C. (H. Goldschmidt and A. Stock. 192,970.)

Ergotamine Salts.—A process for preparing soluble, crystalline salts of ergotamine by the addition of an acid to a solution of the base in a mixture of alcohol, methyl-alcohol or acetone and water. (Chemische Fabrik vormals Sandoz. 170,302.)

Caffeine-Free Coffee.—A process destined to remove xanthine derivatives, particularly caffeine, from coffee beans, by heating the latter in a specially adapted apparatus under pressure to a temperature of 250° to 455° F., in order to effect volatilisation of the alkaloid. (N. Rosewater. 192,745.)

Cosmetic Lotion.—A preparation containing the white of two eggs, mixed with one teaspoonful of rice, half a teaspoonful of "Crème Simon" and sufficient rose water to make 4 oz. (C. Ortegat. 192,840.)

Soap Protector.—A device for soap to rest upon with a minimum of contact surface, consisting of a rod of rubber with a core of flexible aluminium wire, enabling the rod to be bent in the form of a spiral. (W. T. Cunningham. 192,808.)

Hypodermic Syringe.—A nozzle for a hypodermic syringe made in one piece containing an expansion chamber, so that the head of the needle is not screwed on, but pressed on to the extremity of the nozzle. (G. H. Froggatt. 192,766.)

Inhaler.—A pocket inhaler consisting of a tube open at one end to permit the introduction of cotton wool soaked in the inhalant, and having on the side a hinged lid covering a perforated plate. (D. McKillop and J. Murray. 192,921.)

Aliphatic Arsenical Compounds.—A method based on heating aceto-arsenious anhydride to decomposition and treating the residue with an oxidising agent: a mixture of arsenious acid and acetic anhydride in water, to which a small amount of sodium acetate is added, is heated to 180° C. The resulting product is extracted with dilute hydrochloric acid, and then suspended in a solution of sodium carbonate and oxidised by means of "oxygenated water." (Etablissements Poulenc Frères. 191,029.)

Marriages

STEWART-SMITH.—At St. Enoch's Parish Church, Glasgow, on March 5, by the Rev. A. M'Laren, William Napier Stewart, chemist and druggist, son of the late Mr. James Stewart, to Flora, third daughter of Mr. William Smith, Kirkintilloch.

Deaths

BRAIN.—At 92 Forton Road, Gosport, on March 3, Mr. George Johnson Brain, chemist and druggist, aged eighty-five.

EMBREY.—On March 10, Mr. George Embrey, F.I.C., public analyst for the city and county of Gloucester, aged eighty-three. Mr. Embrey was a native of Birmingham, where he received his preliminary training in science. In 1873 he received an appointment at the Gloucester School of Science, and in 1885 he became the city and county analyst. Mr. Embrey was a member of the Council of the Institute of Chemistry, and served terms of office as Vice-President (1913) and President (1916) of the Society of Public Analysts.

GEMMELL.—In a Glasgow nursing home, on March 7, Mr. John Gemmell, chemist and druggist, Rothesay, aged fifty-one.

JESSOP.—At 13 Beaumont Street, Oxford, on February 23, Mr. Josiah Henry Jessop, chemist and druggist, aged seventy-five.

PARKINS.—At 11 Turner Street, Higher Broughton, Manchester, on March 3, Mr. Thomas Parkins, chemist and druggist, aged eighty-nine.

WAALS.—At Amsterdam, on March 8, Professor Johannes Didrik van der Waals, aged eighty-five. Professor van der Waals's researches on the behaviour of gases, developing the laws of Boyle and Gay Lussac, found practical application in the construction of apparatus for making ice and in steam engines. For his work on gases and liquids he was awarded the Nobel Prize in 1910.

WHITROD.—At Diss, on March 12, suddenly, Mr. Henry Frederic Whitrod, retired chemist and druggist, aged seventy. Mr. Whitrod was active in local public affairs, having served as guardian, overseer, and school manager.

WREN.—At 2 Salisbury Road, Moseley, Birmingham, on February 24, Mr. John Wren, chemist and druggist, aged fifty-nine.

Wills

MR. GEORGE WILLIAM DUTTON, chemist and grocer, Bampton, Oxon, who died October 1 last, left estate of the gross value of £6,052 3s. 7d., with net personality £2,981 8s. 10d.

MR. ALLAN LEIGH, chemist and druggist, 241 Walton Village Liverpool, who died on November 24, left property of the gross value of £3,553 9s. 10d., with net personality £3,176 8s. 11d. Probate of the will has been granted to his widow, Mrs. Ivy Ella Leigh, of the above address.

MR. JOHN CHANDLER, chemist and druggist, 210 Reiland Road, Bristol, who died on January 7, left estate of the gross value of £9,687 10s. 7d., with net personality £6,880 18s. 4d. Probate of his will has been granted to his widow, Mrs. Elizabeth Chandler, and his son, Mr. Richard Walter Chandler, of 16 Hurlle Crescent, Redland, Bristol, chemist, and his son-in-law, Frank Edward Scrase, and the Public Trustee.

MR. ALEXANDER CRUM BROWN, LL.D., M.A., M.D., 8 Belgrave Crescent, Edinburgh, Emeritus Professor of Chemistry at the University of Edinburgh, who died on October 28, left personal property of the value of £8,338 8s. 11d. He gives the portrait of himself, painted by E. A. Walton, R.S.A., to the Royal Society of Edinburgh, his portraits of scientific men to the Department of Chemistry of the University of Edinburgh.

Personalities

MR. S. N. PICKARD, chemist and druggist, has been appointed President of the Ossett Chamber of Trade.

MR. S. C. SPROAT, chemist and druggist, Wigton, has been elected unopposed as a member of the Urban Council.

MR. C. H. CLARKE, chemist and druggist, has been returned unopposed to the Chepstow Urban District Council.

THE HON. WILLIAM HULME LEVER (Lever Bros., Ltd.) has been appointed Sheriff for the county of Cheshire for the ensuing year.

MR. ERNEST E. REINHOLD has resigned his position of sales and advertising manager to the Sorbo Rubber-Sponge Products, Ltd.

AMONG the recently elected members of the Malton Urban Council are Mr. C. C. Laverack, Ph.C., and Mr. G. W. Wray, chemist and druggist.

MR. B. R. LEWIS, chemist and druggist, Market Square, Fishguard, has been elected secretary of the recently formed Fishguard and Goodwick Angling Association.

At the annual meeting of the Mansfield and District Chamber of Commerce, Mr. J. A. Pegg, chemist and druggist, was elected vice-chairman, and Mr. A. H. Bell, Ph.C., a member of the Council.

MR. JOHN BROOKS, J.P., chemist and druggist, 8 High Street North, East Ham, London, E.6, has retired after carrying on business in the same premises for thirty-five years. Mr. Brooks entered public life in 1893, and in 1908 was elected Mayor of East Ham.

At a meeting of the South Shore (Blackpool) Traders' Association, on March 7, Mr. D. J. Bailey, chemist and druggist, who has held the presidential chair for two years, was the recipient of a pendant. The presentation was made by Mrs. Bailey, his wife, on behalf of the members.

At a fancy dress carnival recently held at Mansfield the prize for original costume was obtained by the youngest daughter of Mr. W. O. Pegg, chemist and druggist. As will be seen from the photograph, she was covered from head to foot with chemists' articles, ranging from soothers as earrings, and including many well-known proprietaries, puffs, pill-boxes, bottles of various remedies, and even a miniature pill machine on the frock.

A CORRESPONDENT sends us a cutting from "John o' London's Weekly," giving, in reply to a query, the names of three pharmacists who have written works of general interest.—Mr. Kenneth S. Dickinson, Ph.C., Newcastle-on-Tyne; Mr. A. Sercombe Griffin, Weston-super-Mare; and Mr. David Morgan, Pencader.

MR. W. F. CHARLES, F.R.M.S., chemist and druggist, chairman of Zenobia, Ltd., gave an instructive lecture, illustrated by a series of lantern slides prepared from microphotographs, entitled "The Snapdragon and the Humble Bee,"

before the Loughborough Literary and Philosophical Society, of which he is President, on March 1.

NORTH DEVON ASSOCIATION OF PHARMACISTS.—Mr. W. J. Shepperd, Barnstaple, secretary of the North Devon Association of Pharmacists, writes pointing out that in our report of the March Council meeting of the Pharmaceutical Society (*C. & D.*, March 10, p. 343), the word "North" was omitted from the title of the Association.



MISS PEGG

Trade Notes

PARFUMS D'ORSAY.—Reductions in price are announced in the advertisement of S. Naniass' Sons, 54 George Street, Baker Street, London, W.1.

CURASOL BORACIC SOCKS.—The distributing agents for Curasol socks are mentioned in the advertisement of The Curasol Sock Co. The socks sell at 4½d. per pair.

PERFUMERY AND TOILET ARTICLES.—Beaz, Ltd., Blackpool, have issued an attractive illustrated list of toilet articles and perfumery. Chemists may have a copy on application.

"**MODERN RETAILING**" is the title of a booklet which the National Cash Register Co., Ltd., 225 Tottenham Court Road, London, W.1, offer to chemists who fill in a coupon attached to the advertisement.

AURORA DYES.—Whitaker & Co., colour works, Kendal, have sent us further examples of their new show-cards and tint-cards. These include a pretty window transparency and a combined show-card and tint-card.

ACCURATE BOTTLES.—The United Glass Bottle Manufacturers, Ltd., 40-43 Norfolk Street, Strand, London, W.C.2, call attention to their manufacture of bottles, which are stated to be the most accurate bottles procurable.

G. O. SEIDLITZ POWDERS.—The Greenwich Lemonade Co., 11 John Penn Street, London, S.E.13, are advertising new bonus terms in connection with G.O. Lemon Flavoured Seidlitz Powders. The powders are now packed in cellophane.

NADCO DYES are to be reduced in price to the public on May 1 from 1s. to 9d. per packet. The reduced trade terms come into operation at once. Particulars are given in the announcement in this number of The British Harold F. Ritchie & Co., Ltd., 33 Farringdon Road, London, E.C.1.

EXTERPEST is a non-poisonous insecticide, manufactured by Smethurst & Meade, Ltd., 16 John Dalton Street, Manchester. The principle upon which it acts is that the insects distribute the powder on their bodies, destroying the insects, and this destroys the eggs. Exterpest retails at 6d., 1s. 3d., 2s. 6d. and 5s.

DARK ROOM LAMP.—The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2, have sent us particulars of the "G.E.C." two-way adaptor for electric lamps. It is particularly useful for the photographic dark-room, as white and red light can be obtained from the same point, controlled by two switches.

CORNOL.—Thompson & Capper, Ltd., Manesty Buildings, College Lane, Liverpool, advertise Cornol in this issue, and make a special window display offer. Cornol is a remedy for corns, and is attractively packed in red cases, the label being in green. A showcard is supplied, measuring 10½ in. by 8 in., which has upon it a full-size reproduction in colours of the Cornol package.

SUTTON'S AMMONIA.—G. F. Sutton, Sons & Co., Osborne Works, Brandon Road, King's Cross, London, N.W., send us sample bottles of their "compound cream ammonia." This is a household ammonia correctly packed, and rubber corks are used, so that the liquid will retain its strength. It is stated to have been prepared for fifty years, so that it can well be said that the article has stood the test of time.

BRANDED TOOTH BRUSHES.—W. R. Tilbury & Sons, brush manufacturers, 47 Frampton Park Road, Hackney, London, E.9, have a special department dealing with "Own Brand" tooth brushes for chemists' sale. On orders of seven gross, delivery of which can be distributed over a stated period, a chemist may have his name and address stamped on the handles, and the brushes are supplied in cartons ready for sale.

DEVELOPING APPLIANCES.—O. Sichel & Samuelson, 52 Bunhill Row, London, E.C.1, issue a price list of modern appliances for use in the photographic developing, printing and enlarging department. The illustrations and details given of the various apparatus are of great

utility and enable a chemist to work out the cost of fitting up the department. Interesting features of the list are formulas for use in developing and notes as to organising the department.

BRITOL DISINFECTANT.—Britex Chemical Products, Ltd., 26-29 Audrey House, Ely Place, London, E.C.1, send us Dr. E. K. Rideal's report of investigations carried out regarding the efficacy of Britol disinfectant. It is a detailed report dealing with various aspects connected with disinfectants. The conclusion arrived at is that Britol is free from corrosive or strongly tarnishing properties, is a non-toxic and non-irritant disinfectant, a powerful and rapid deodorant, showing a marked superiority over lysol preparations. It is stated to be a very suitable disinfectant for the treatment of stools, urine, etc., and that its germicidal activity is not rendered inert by the presence of large amounts of organic matter.

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1923, p. 289.

(From "The Trade-marks Journal," February 14, 1923.)

"**TIME-O-DAY**" (letter "C" formed by face of clock) and words "The World's Standard for Soap and Time" on scroll ("W & S" disclaimed); for perfumery, etc. (48). By Wilkie & Soames, Ltd., Tunnel Avenue, Greenwich, S.E.10. 431,511. (Associated.)

"**TAYLORIA**"; for perfumery, etc. (48). By Taylor's Drug Co., Ltd., 347 Burley Hill, Leeds. 432,054.

(From "The Trade-marks Journal," February 21, 1923.)

"**E. AND S.**" on shield device; for chemicals (1) and for medicinal chemicals (3). By Essences and Synthetics, Ltd., 37 Red Lion Street, London, W.C.2. 428,975/976. (Associated.)

"**MARSHALL'S LYSOL**," with device, including wrapped bottle bearing letters "L.L.L." triangle, etc. ("Lysol" "Marshall's" and "L.L.L." disclaimed); for Lysol (2). By Lysol, Ltd., Kingston Road, Raynes Park, London, S.W.20. 423,670. (Associated.)

"**WELSTOCK**"; for chemicals (2). By F. A. Adams, J. Cook and J. A. Read, 46 Saint Stephens Street, Norwich. 429,692.

"**FUSARIOL**"; for an agricultural germicide (2). By F. W. Berk & Co., Ltd., 1 Fenchurch Avenue, London, E.C.3. 431,699.

"**MANCO**"; for medicinal chemicals (3). By Taylor's Drug Co., Ltd., 347 Burley Hill, Leeds. 432,052. (Associated.)

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

M/103. "Azed" water softener	C/132. Sodium soyate
S/123. Benatol	B/53. Transparent containers for tooth brushes, &c. (French or British makers)
B/133. Cox's ointment	F/23. "Twenty-Fragrances"
P/103. Dr. Williams' vinegar bitters	S/123. Vincent's Virmol
M/92. Herald's pills	S/133. Vitrola
F/23. "Kisheri" perfume	M/93. Williams' plasters
B/103. Nikko insect powder	M/103. Wright's Nitsoline
H/103. "No plus ultra" nasal douche	
B/143. Rania vanishing cream	

INFORMATION SUPPLIED

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.4.

Carbolacene. S/123	"Koh-i-Noor" tooth brushes. H/123
Catalpo. B/135	Lactogen milk food. D/132
Collapsible tubes. F/301	Martin's condition powders for dogs. S/103
Collapsible tube - filling machines. F/301	Mesotan. K/123
Cuticura soap. S/82	Secwa tonic food. M/93
Dulley's clinical thermometer cases. M/73	"Simplic" soothers. H/133
Epilation outfits. R/103	Tooth paste machinery. F/301
	Valex. A/93

Observations and Reflections

By Xrayer II.

The Reply

of the Army Council to the Society with regard to the status of Army pharmacists contains one sentence which is of itself sufficient to show the incapacity of the official mind to take a common-sense view even of its own business. We are told that the arrangements already made meet all "the essential requirements, having in mind... the urgent demand for the most rigid economy." That economical considerations should be allowed thus to affect one's view of what is "essential" is, of course, absurd, even if the economy could be plausibly defended on general grounds, but in this case it cannot. The Council has probably made a mistake in laying too much stress on the status of pharmacists, as if that were a sufficient end in itself, which from the Army point of view it is not. The thing that matters is the effect of our status upon the service, and this has, perhaps, hardly been sufficiently insisted upon. It is impossible that a non-commissioned officer, whatever his ability, should have the same influence as one with a commission, and the service he controls will suffer in proportion to his inferiority in rank. It is not mainly as "an affront to pharmacists" that we should resent the attitude of the Army Council, but as an injury to the service; it is not the interests of pharmacists that should be urged, but those of the Army, though some of the speakers at the meeting of the Pharmaceutical Society's Council do not seem to have remembered this. Mr. Guthrie was right in saying we should stick up for ourselves, but this attitude may easily be overdone.

The Wholesale Trade

is naturally against the proposal of the Pharmaceutical Society's Council that persons or firms supplying poisons by wholesale should be licensed by the Home Office to do so; but it is difficult to see any reason for their objection except the inconvenience that would thus be caused to themselves, or why such inconvenience should be considered in their case since it is not in ours. The restriction of sales by wholesale to doctors, dentists, etc., as proposed, might indeed be a sufficient safeguard; but how is it to be enforced if anybody and everybody who professes to sell by wholesale is allowed to supply these poisons without other control than an enactment to that effect? The tracing of sales would certainly be greatly helped by a licensing system, and without it would be exceedingly difficult. There is a general agreement that some measure of control is necessary, and since nothing less than what is proposed by the Council would be likely to prove effective it is to be hoped they will not modify their proposal in such a way as to stultify it. The convenience of one section of the trade ought not to stand in the way any more than the convenience of another.

The New Objects

to which the War Auxiliary Benevolent Fund is to be extended include, as stated in the recommendation of the Committee, at least one which is outside the purpose for which the Fund was originally raised, and is therefore not covered by the undertaking of the Committee that the Fund should not be deflected from its original purpose. I refer to object 1 (b), which is the assistance in pharmaceutical training and education of persons who "are, in the opinion of the Council, suitable persons to receive such education and training." As the dependants of persons who served during the war are previously provided for, this provision appears to be intended for others who are not affected by the war, and, however intended, is certainly capable of being so construed. It may be that it is by an error in drafting that this clause bears such a construction, but the supposition is not very flattering to our secretariat. As the clause stands, there is nothing in it to prevent the application of the Fund to any student the Council may favour, without any reference whatever to the war.

Messrs. Boots

deserve thanks as well as congratulations for their action in the case reported from Kensington. But for them, all the cases referred to would probably have been proceeded with, and serious injustice have been done. Apart from that, too, it is highly desirable that no instance of irregularity in prosecution should be allowed to pass unexposed, whether injustice is done or not. With the present set made against us in official quarters and by a section of the public Press we must use every weapon in defence that comes to our hand, and when possible carry the war into the assailants' territory. From this point of view Mr. Harrie should also be thanked for his courage in exposing the errors of prescribers. I don't know that it is good policy to do this in a general way—I rather think not—but when we are accused so recklessly by members of the profession it is quite legitimate, and maybe salutary, to hit back. The proposal of one of your correspondents to avoid errors by weighing instead of measuring ingredients does not appeal to me. There is just as much liability to error in that method as in the other, if not more, to say nothing of its other drawbacks. A contributor to the discussion of the subject in one of the London dailies recommends the use of chemical symbols for all ingredients in a prescription instead of names. A Daniel come to judgment!

Sir W. Glyn-Jones's Suggestions

to the Federation of Grocers' Associations will, I fancy, be thought by most members of the Proprietary Articles Trade Association to need some elucidation. As reported, they seem to mean that Sir William would have the P.A.T.A. enlarge its constitution so as to include grocers as well as chemists in its price-protection scheme, for I can only interpret in this sense his repeated reference to "the machine" with which he would have both the Grocers' Federation and the P.A.T.A. "very closely associated," his remark that neither of them could run the machine successfully alone, and the further remark that some change in the constitution of the P.A.T.A. would be necessary. But does Sir William think that any "machine" of this kind could be run successfully by the P.A.T.A. and the Grocers' Federation, acting together? He sees that the conditions of the grocery trade are different from ours, and implies that our method of "command and control" might not be suitable to them; but he does not seem to realise how great the difference is, or how greatly the grocers would overbalance us in any joint undertaking in which they were fairly represented. There are, I understand, about eight grocers to every chemist in business, and they are, and can afford to be, content with a lower rate of profit than we on these to them comparatively insignificant articles. I presume Sir William would not contemplate anything more than a grocers' branch of the P.A.T.A., but even that would be very difficult, if not impossible, to work. The ultimate result of any joint scheme, were such a scheme feasible, would probably be a general lowering of rates of profit on proprietaries, to the advantage of neither party. If the grocers are to have a P.A.T.A., I see no reason why they, alone, should not run one as successfully as we have run ours, and I would advise a benevolent neutrality (which is quite possible) rather than a formal alliance between the two.

"VOLUNTARY HOSPITAL" DEFINED.—The interim report of the Voluntary Hospitals Commission appointed by Sir Alfred Mond in 1921 contains the following definition of a voluntary hospital:—

An institution (other than an out-patient dispensary) managed by a responsible committee and wholly or mainly supported from voluntary sources (including income derived from endowments or investments), the object of which is to provide medical or surgical treatment of a curative character; an auxiliary institution (such as a convalescent home) being eligible for assistance only in so far as it increases the facilities of hospitals from which it receives patients.

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AN announcement of particular interest to you appears in this issue on page 8

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Editorial Articles

Business Propaganda

DURING the war the cumulative effect of incorrect ideas held by Government departments, public authorities and the general public of the duties and responsibilities of chemists produced a distinct prejudice against the trade. So much was this the case that at a meeting of the Sheffield Pharmaceutical and Chemical Society a month before the Armistice (*C. & D.*, 1918, p. 813) we suggested that a propaganda should be undertaken to advertise the chemists' business on general lines. The proposal was that after the war local associations should supply their members with pamphlets and circulars for inclusion with other advertising matter which should enlighten the public as to the real nature of the work of pharmacists and show the important part which chemists play in the business life of the nation. The idea was to place the matter before the public in a dignified manner and to avoid blatant advertising. With this object in view we circulated the draft of a pamphlet of the kind that chemists could distribute in prescription envelopes and parcels sent to customers. We considered that the net result of collective advertising on this plan would be of great benefit to the drug-trade. For various well-understood reasons the suggestion "fell upon stony ground," and beyond the effort to educate the public which was made last year by the Manchester Pharmaceutical Association at the Chemists' Exhibition (*C. & D.*, December 9, 1922, p. 824), nothing, so far as we are aware, has been done to carry out the plan. As recent events have shown, there is at the present time urgent need for adopting some such scheme as we outlined in

1918. We have therefore resuscitated the idea, and elsewhere in this issue we print a revised version of the pamphlet drawn up four years ago. We invite our readers to criticise the draft and to send us suggestions for improving it so that an agreed wording of the pamphlet may result which will be acceptable to the majority. We should like chemists to bear in mind that the purpose is to produce a readable pamphlet for laymen, and that while avoiding technical details a correct statement of the duties and position of chemists is required. We hope to incorporate all suggestions that are compatible with the scheme, and then to print the matter in pamphlet form in shape and style suited for insertion in prescription envelopes and parcels. These would be tastefully printed and supplied to chemists in packets of a hundred at a small charge. There would be a space provided for placing the chemist's stamp or business label. That something of the kind is considered necessary is shown by the action of the Retail Pharmacists' Union in publishing during the week-end large advertisements in a selection of the daily and weekly papers. These advertisements, ephemeral in nature, have cost a large sum of money, and we understand that the matter has been written by advertising experts, and carried out through the good offices of S. Maw, Son & Sons, Ltd. The effect of the advertisements can hardly be so great as a sustained effort by chemists all over the country in some such scheme as we have outlined. We are glad to note that some associations in the country have conducted useful propaganda in the local Press, a good example being sent us from Mansfield. We invite criticisms and suggestions of the pamphlet scheme, and we should be glad if readers will let us have these promptly, so that we can proceed with the scheme with as little delay as possible.

February Overseas Trade

At the first glance the Board of Trade Returns for February would appear to be disappointing, as the imports are almost 14½ millions more and the exports and re-exports combined £1,176,000 less, but an examination of details discloses a better situation than is apparent on the surface. The British exports for the month were valued at £57,510,000, or £825,200 less than in February last year, the most serious feature being a decline in manufactured goods by £3,676,000, but this decrease is misleading, and arises from the fact that the value of "new ships" exported during the month amounted only to £549,200, compared with the enormous total of £7,015,600 in February last year, a decline of £6,421,000. Apart from this extraneous item, exports are converted into an increase of about £5,596,000, which more accurately represents the position. Exports of coal amounted to £6,847,800, or £2,401,600 more than in the corresponding month last year, this expansion being practically all due to the Franco-Belgian occupation of the Ruhr. Germany took over a million tons, and exports to Belgium, Holland and France also increased at rising prices. Considerable activity again prevailed in the chemical and drug section, substantial increases being shown compared with February last year, and also with January of this year. Last month's figures were:—

1921	1922	1923
£2,000,552	£1,566,884	£1,952,630

The increase was £395,746, whereas in January the increase was £232,507. Details of British chemical and drug exports are as follows:—

British Exports.

	February, 1921	February, 1922	February, 1923
Acid, sulphuric cwt.	11,713	6,990	1,550
" tartaric (incl. tartrates n.e.s.)* "	731	234	1,867
Ammon. chloride tons	85	508	283
" sulphate "	13,478	11,751	22,159
Bleaching powder cwt.	25,120	11,654	26,243
Coal-tar products (n.e.s.):—			
Anthracene "	—	20	—
Benzol & toluol galls.	3,424	4,767	801
Carbolic acid cwt.	3,171	11,073	10,153
Naphtha galls.	8,376	1,083	2,405
Naphthalene cwt.	5,401	2,546	12,776
Tar oil, creosote, etc. .. galls.	739,656	195,397	1,668,768
Other sorts cwt.	35,354	29,214	34,002
Copper sulphate tons	3,181	3,942	8,575
Disinfectants, insecticides, weedkillers, sheep and cattle dressings (excl. tobacco offal) cwt.	13,501	23,858	25,671
Glycerin, crude "	5,856	2,274	524
" distilled "	4,934	1,808	4,460
Potassium compounds "	1,285	8,261	7,065
Sodium compounds "	448,164	686,072	651,123
Zinc oxide tons	20	127	135
Chemicals, all other sorts	£ 203,007	230,106	274,311
Dyes, medicines, etc. "	229,784	187,598	222,589
Dyes and dyestuffs cwt.	12,429	6,916	8,610
Painters' colours and materials (n.e.s.)* "	74,373	83,468	105,385

Turning to imports, there is an advance of almost five millions more for food, drink and tobacco, imports amounting to £37,140,000, but it is satisfactory to note that the expansion in quantity has been much greater than that in value, and compared with the corresponding month of two years ago our food purchases have diminished by over ten millions sterling. Raw material imports were up by £6,519,000, which is satisfactory. They include £1,082,000 more for oil seeds, nuts, oils, fats, resins and gums, scheduled at £3,713,000. Our imports of chemicals, drugs, dyes and colours were £303,600 more at £1,147,500, and included the following:—

Imports.

	February, 1921	February, 1922	February, 1923
Acids:—			
Acetic (incl. acetic anhydride) tons	103	253	526
Tartaric (incl. tartrates, n.e.s.)* cwt.	760	451	2,278
Bleaching materials "	380	2,376	1,981
Borax "	960	500	8,404
Calcium carbide "	19,219	45,172	41,080
Coal-tar products (n.e.s.)* .. £	63,213	16,746	5,849
Glycerin, crude cwt.	3,521	3,168	1,329
" distilled "	396	778	273
Lead compounds:—			
Red lead and orange lead .. "	2,532	1,229	4,103
Nickel oxide "	6	—	1,393
Potassium compounds:—			
Nitrate (saltpetre) "	7,525	3,501	5,982
Other compounds "	97,173	300,275	483,912
Sodium compounds:—			
Nitrate "	133,664	124,756	89,465
Other compounds "	7,340	9,516	27,261
Cream of tartar "	1,337	24	4,684
Zinc oxide "	1,337	24	4,684
All other chemicals £	323,719	140,835	258,964
Drugs, medicines, etc.:—			
Quinine and salts oz.	250,891	20,000	68,997
Bark, cinchona, etc. cwt.	1,065	31	210
Other drugs, etc. £	157,707	111,463	217,212
Alizarin cwt.	—	4,231	712
Indigo, synthetic "	2,212	—	2,520
Other finished dyestuffs "	—	2,321	2,393
Extracts for dyeing:—			
Cutch "	1,910	1,356	3,519
All other sorts "	8,668	5,642	5,480
Indigo, natural "	63	239	—
Painters' colours and materials (n.e.s.):—			
Barytes ground (incl. blanc fixe) "	22,646	28,987	55,870
White lead "	5,932	7,755	7,813
Other sorts "	42,889	34,517	51,433

*N.E.S.—Not elsewhere specified.

In view of the advance in the mercury market, the import and re-export figures are interesting. During February the imports were 424,888 lb. and the re-exports 254,400 lb., leaving an excess of 170,488 lb., and on the two months' working this excess is 240,647 lb., or, say, 3,208 bottles. Gums and resins continue to arrive freely: of acacia and tragacanth we received almost double the quantity compared with a year ago—9,366 cwt.; kauri gum imports were 4,986 cwt., against 1,174 cwt., and shellac, seedlac and sticklac rose from 5,134 cwt. to 8,149 cwt. Toilet and shaving soaps were imported in largely increased quantities—viz., 6,029 cwt., against 2,237 cwt. in 1922: these mostly come from the United States and the Continent, competing freely with British-made toilet soaps.

Points for M.P.'s

ALTHOUGH it cannot be said that the drug-trade is as yet seized with the important issues at stake in the Dangerous Drugs and Poisons (Amendment) Bill now before Parliament, yet we hope that chemists who are able to do so will try to influence their members of Parliament in the direction of modifying some of the objectionable features of the Bill. The Dangerous Drugs Act, 1920, is a piece of panic legislation which was carried through on the top of a newspaper "stunt" at a time when to oppose the Bill was made to appear as equivalent to conniving at the "drug" evil. It is safe to say that the Dangerous Drugs Act has made more criminals and more offences against the law than any piece of modern legislation. Parliament unfortunately gave power to a Government Department to make regulations on the lines of the discredited Defence of the Realm Acts, creating hundreds of new offences. It would be a bold man who would contend that the Act has diminished the illegitimate traffic in cocaine and morphine, but it has undoubtedly harassed doctors and chemists in their business of prescribing and dispensing for sick persons, and led to much unnecessary suffering. The introduction of the Dangerous Drugs and Poisons Bill (printed in the *C. & D.*, February 24, p. 263) offers an opportunity for endeavouring to obtain an amelioration of some of the worst restrictions on the legitimate use of the medicaments classed as "dangerous" drugs. We should be glad if chemists who appreciate what we have written will get in touch with their member of Parliament and put before him the following points: The origin of the Dangerous Drugs

Act, 1920, was the International Opium Convention, 1912. The agreement is published as "Cmd. 1520, 1921," but Great Britain has not carried out the International undertaking as to the strength of drugs, owing, we believe, to the blundering of the civil servants concerned or the draftsman of the original Bill. We place in parallel columns the Convention strengths and those given in the Dangerous Drugs Act, 1920:—

Convention

Article 14. The contracting Powers shall apply the laws and regulations respecting the manufacture, import, sale or export of morphine, and their respective salts.

(a) To medicinal opium.

(b) To all preparations (official and non-official, including the so-called anti-opium remedies) containing more than 0.2 per cent. of morphine or more than 0.1 per cent. of cocaine.

(c) To heroin, its salts and preparations containing more than 0.1 per cent. of heroin.

D.D.A., 1920

Section 8 (1). The drugs to which this part of this Act applies are morphine, cocaine, ecgonine and diamorphine (commonly known as heroin) and their respective salts and medicinal opium and any preparation, admixture, extract or other substance containing not less than one-fifth per cent. of morphine or one-tenth per cent. of cocaine, ecgonine or diamorphine.

We have emphasised in italics the difference between the Convention requirements and the faulty interpretation of these in the Dangerous Drugs Act. The point has been scoffed at by Government officials as too small for correction, the inconvenience and loss to exporters and importers through different strengths in Great Britain as compared with all other countries not being

"PERCENTAGE" appreciated. Linked up with this international obligation is the proposal in Clause 4 of the Dangerous Drugs and Poisons Bill to depart still further from the international agreement by enacting a method of calculating percentages which in fact are not "percentages."

The rules of arithmetic do not allow us to call one in a hundred and two a "percentage," but the Home Office seeks power to call this a "percentage." Moreover, without mentioning the temperature and pressure at which the "percentage" is to be taken the error may be large and is certainly indefinite. All other signatories to the International Opium Convention employ a true percentage in calculations, so that Great Britain will be isolated, not only in regard to the limit of strengths of "dangerous" drugs, but on the method of calculating percentages. This still further complicates international commerce. Not content with enacting that this incorrect method of calculating percentages shall apply to "dangerous" drugs, the Clause drags in the Poisons Schedule of the Poisons and Pharmacy Act, 1908, and to suit the whim of some unknown official many of the strengths of official pharmaceutical preparations are to be altered. A notable example of this was given in the *C. & D.*, March 3, p. 306, where it was shown that the strength of dilute hydrocyanic acid will be increased from 2 per cent. weight in weight to nearly 3 per cent. That the consequences may be disastrous need not be further emphasised. It happens, moreover, that the strengths of many potent drugs are the subject of another international agreement. Great Britain is a signatory of the International Conference respecting the Unification of the Formulæ for Potent Drugs and Preparations adopted in 1906, but it is now proposed to introduce a so-called "percentage" which is not recognised by the other signatories or by analysts. This brings us to another objection to arbitrary "percentages," which is that analysts who have been scientifically trained would not recognise weight in volume as a "percentage," and in reporting on samples of drugs will employ true percentages. As analysts do not usually state how they arrived at their results it may happen that a chemist's drugs will be adversely reported on because of this confused method of calculating percentages. The last point we have to deal with is that of the excessive penalties VINDICTIVE imposed by the Dangerous Drugs Act, and PENALTIES which are to be increased in the Dangerous

Drugs and Poisons Bill to a maximum of a fine of one thousand pounds and penal servitude for ten years. Such savage penalties will not, we think, have the slightest effect in preventing the illegitimate traffic in "dangerous" drugs, as this is carried on by "men of straw," but the inclusion of such astonishing penalties in an Act of Parliament has the effect that it adversely influences magistrates in the administration of justice. There are, as we have said, hundreds of offences created by the Regulations made under the Dangerous Drugs Act, many of these being of a most trivial character. For example, a chemist may omit to make an entry in one of the numerous registers, or he may make it an hour or two beyond the time laid down in the Regulations.

He may to oblige a sick person suffering agonies of pain make up a doctor's prescription which does not give every one of the doctor's Christian names in full. For these trivial offences he is liable to be hauled up before a magistrate, and the last-named looking at the maximum penalties laid down in the Act, may think he is letting the chemist off lightly by fining him a quarter of the maximum penalty (£250), a sum which is more than the yearly profit of many chemists, and which would mean the ruin of many businesses. To reiterate the three points upon which chemists can usefully address their representatives in Parliament are:—

(1) Reversion to the International Opium Convention as to the strength of "dangerous" drugs.

(2) Deletion of Clause 4, which would take Great Britain still further from the international agreement; or

(3) The omission of the reference to the Poisons Schedule of the Poisons and Pharmacy Act 1908 until the effect has been considered by the General Medical Council, with whom rests the obligation to issue the British Pharmacopœia; and

(4) The insertion of reasonable penalties only for trivial infractions of Regulations.

In regard to the Dangerous Drugs and Poisons Bill very little progress has been made during the week, Standing Committee 13 not having yet considered the Bill. We understand that clauses are being drafted to carry out the recommendations in the Pharmaceutical Society's memorandum (*C. & D.*, March 10, p. 341) regarding amendments of Section 17 of the Pharmacy Act 1868. These concern the labelling of proprietary medicines containing statutory poisons and the sale of poisons by wholesalers. There is also a possibility of a repeal of Section 17 and the enactment of a codified section to take its place.

Chemists' Windows

Photographs of windows sent to the Editor for reproduction should be accompanied by a note on how the displays were arranged.

A Seasonable One-article Window

THE window shown in the accompanying illustration was arranged by the Thermogene Co., Ltd., in connection with their window-display bonus offer at the shop of Mr. Richard Thomas, Ph.C., 97 High Street, Marylebone, London, W.1. Blue crêpe paper was used for



the background, and the crêpe paper streamers were of the same orange colour as the packets. This window can be made up from the standard set of advertising material enclosed with the goods sent on display bonus terms, or obtainable on application to the company.

Westminster Wisdom

By the "C. and D." Parliamentary Representative

REGISTRATION OF BUSINESS NAMES

Viscount Wolmer stated in the House of Commons, on March 13, that the loss in the working of the Registration of Business Names Act, 1916, during 1922 amounted to £1,475. The number of applications registered during that year was 17,174.

PHARMACY BILL

The Pharmacy Bill introduced last week (*C. & D.*, March 10, p. 333) on behalf of unqualified drug-store proprietors was to have been read a second time on March 14, but was not reached. This is the Bill which was first introduced in the House of Commons on November 3, 1921, and again on June 30, 1922. An outline of the provisions was given in the *C. & D.*, I., 1921, p. 630.

METHYLATED SPIRIT DRINKING.

Replying to a question in the House of Commons on March 14 the Home Secretary said the attention of the Home Office for some years had been engaged in connection with convictions for drunkenness, of which the cases believed to be due to the drinking of methylated spirits have shown a tendency to increase. It was not a matter as to which he had any powers, but he would continue to study it in consultation with the authorities in the hope of finding preventive measures. He understood, however, that it had not been found practicable to make the spirits more unpalatable than they are at present.

SAFEGUARDING OF INDUSTRIES ACT.

The Chancellor of the Exchequer, in the House of Commons on March 12, stated that the following amounts have been collected by way of duties under the Safeguarding of Industries Act up to February 28:—

Country whence the goods were consigned.	£
France	63,669
United States of America	89,911
Germany	402,130
Belgium	9,050
Other countries	73,799

£638,559

LICENCES TO IMPORT DYES

Viscount Wolmer stated in the House of Commons, on March 13, that the total number of applications for licences during the months of January and February was 1,208. Licences were granted in 822 cases, in 141 cases applicants were referred to available supplies of reparation dyestuffs, in 215 cases licences were refused and the applicants referred to British manufacturers of similar products, and on February 28 thirty applications were outstanding, of which a number had been received on that day. Of the total number of applications received, 971, or 80 per cent., were dealt with either by the grant or refusal of a licence, or by reference to reparation stocks, within three days, and 1,131, or 94 per cent., within one week.

SHEEP SCAB

Sir Thomas Henderson asked the Minister of Agriculture, on March 12, whether double dipping, from the point of view of the prevention of sheep scab, has proved effective; whether the number of cases has decreased since it was introduced; and whether he can give the figures showing the number of certified cases reported in England for the years 1918, 1919, 1920, 1921 and 1922 respectively.

Sir R. Sanders stated that the reply to the first part of the question is in the affirmative. The double dipping of sheep has never been required generally throughout the country, but it has been applied from time to time in certain badly infected districts with very good results. The number of outbreaks of sheep scab confirmed in England in each year from 1918 to 1922 is as follows: 1918, 172; 1919, 245; 1920, 240; 1921, 368; 1922, 284.

Pharmaceutical Society of Great Britain

Evening Meeting in London

AN evening meeting of the Pharmaceutical Society was held at 17 Bloomsbury Square, London, W.C., on March 13, the President (Mr. E. T. Neathercoat) in the chair. A damp evening following a day's continuous rain was probably responsible in large measure for the numerous gaps in the benches of the lecture-theatre. Professor Greenish and Sir William Glyn-Jones supported the President at the table, and among the audience we noticed Mr. F. Browne, Mr. C. E. Corfield, Mr. H. Deane, Mr. Norman Evers, Mr. H. Finnemore, Mr. R. Fouracre, Mr. C. H. Hampshire, Miss M. Glyn-Jones, Mr. H. C. Krassner, Mr. A. R. Melhuish, Mr. Langford Moore, Mr. C. A. Noble, Miss Pearson, Mr. P. A. W. Selfe, Mr. W. A. Whatmough, and Mr. G. Watkins.

The PRESIDENT briefly opened the proceedings by remarking that, while members of the Society were pleased to have welcomed lecturers not intimately connected with the Society, they were especially glad that Professor Greenish, Mr. Wallis and Mr. Maplethorpe were able to provide lectures.

The first paper taken was

Florida Arrowroot from "*Zamia floridana*," A. De C.

By T. E. WALLIS, B.Sc., F.I.C., Ph.C.

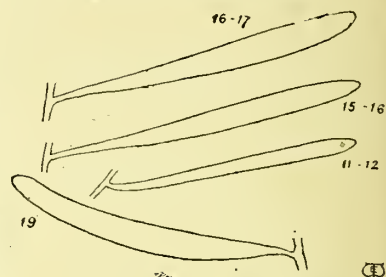
[ABSTRACT]

Florida arrowroot is obtained from the tuberous stenis of a *Zamia* believed to be *Zamia floridana*, A. De C., a plant belonging to the Cycadaceae and growing in the pine lands throughout the Florida Peninsula and most abundantly near the northern and southern ends. Some confusion has existed in the past as to the exact identity of this plant. A *Zamia* was discovered about 1765 by William Bartram, of Philadelphia, while travelling in Florida, and he referred the plant to *Zamia pumila*. In 1767, Alexander Garden, a Scotsman, who migrated to South Carolina, sent a specimen of "John Bartram's Tallow Tree" from East Florida to John Ellis, of London; this specimen eventually reached Kew Gardens, and was described and published as *Zamia integrifolia* by William Aiton in 1789. This type specimen is in the herbarium of the British Museum. In 1838, Asa Gray took other specimens of a Florida *Zamia* to Europe and gave them to Augustin de Candolle at Geneva. This plant was described and published as *Zamia floridana*, in 1839 by Alphonse de Candolle, who regarded it as having been erroneously referred to *Z. integrifolia* by A. Gray. John K. Small concludes that Alphonse de Candolle's plant was one collected by Dr. G. W. Hulse, a surgeon of the Confederate Army, while he was in Florida in 1837, and who recorded the fact that "arrowroot" was made in extensive establishments in Florida from a plant called "conti-hateka" or "coontie," and that it had been prepared for ages by the aborigines and the Seminole Indians. J. K. Small has compared tracings of the leaflets of both these type specimens, obtained from London and Geneva respectively, and concludes that they are the same species. The Kew Index gives *Zamia floridana*, A. De C., as synonymous with *Z. angustifolia*, Jacquin, and with *Z. integrifolia*, A. Gray. I have, however, examined Jacquin's original drawing of the plant which he named, and find that it is very different from *Z. integrifolia*, Ait., and also from J. K. Small's specimen of *Z. floridana*, A. De C., sent to the British Museum in 1921. Specimens of both male and female plants of *Zamia floridana*, De C., collected by Professor Charles T. Simpson at Little River, Florida, have been presented to the Museum of the Pharmaceutical Society in January 1923 by Mr. Wilson Popenoe, Agricultural Explorer of the U.S. Department of Agriculture.

By the courtesy of Dr. A. B. Rendle, Keeper of Botany at the British Museum, I have been able to compare our specimens of *Zamia* with J. K. Small's specimen referred to *Z. floridana*, A. De C. (collected at Miami and sent to the Museum in 1921) and also

with the type specimen of *Z. integrifolia*, Aiton, which was described in 1789. Our specimens agree exactly with that named *Z. floridana*, A. De C., by J. K. Small, who considers this plant to be identical with *Z. integrifolia*, Aiton. After examining for myself the

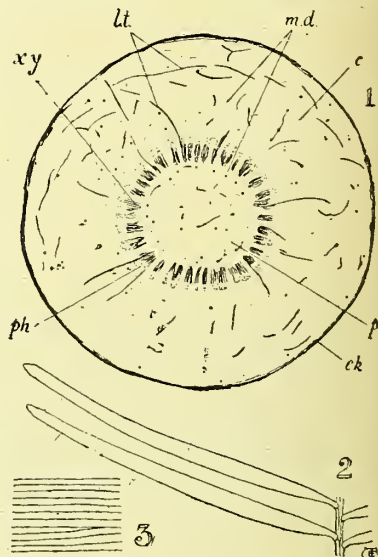
actual type and comparing it with Small's plant, I feel some doubt as to the identity of the two plants. Aiton's plant has leaflets which are not linear-lanceolate like those of Small's plant, but widen towards the apex, giving them an oblancoate form; I have made tracings of



Zamia integrifolia Ait

four of the leaflets of Aiton's plant, and if these are compared with the drawings of the leaflets of Small's plant the difference will be evident. The margin of the leaflets of Small's plant are also distinctly recurved, while Aiton's plant does not show this character. It is impossible, at present, to compare Small's plant with De Candolle's type at Geneva, but one may provisionally refer to the plant as *Zamia floridana*, De C., as named by Small. This *Z. floridana* is a short-stemmed plant resembling a tree-fern or palm with a crown of large, pinnate, coriaceous leaves. The stem rarely exceeds

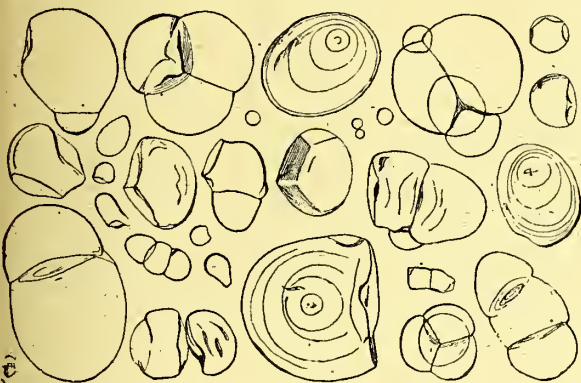
eighteen inches in height and the leaves are from eighteen inches to one yard in length and have twenty-eight to forty leaflets, each of which has ten to sixteen parallel veins (2). The plants are dioecious; the fruiting cones are markedly umbonate and have seeds with bright red coats, which show between the scales as the cones ripen. The characters of the leaflets and their venation are shown in (2) and (3). A transverse section of the tuberous stem shows a large central pith surrounded by a single ring of bundles, consisting of a yellowish xylem and a pale-coloured phloem separated by a cambium. Between the bundles are wide medullary rays leading to the very wide cortex. The stem is protected on the outside by a thin layer of cork. Scattered throughout the section are numerous mucilage ducts appearing as reddish points or short lines; in the cortex there are also numerous yellowish leaf-trace bundles running in all directions. Clevenger states that the plants used by the manufacturer are wild plants growing near Miami, Florida, and are collected by the local residents. The undried rhizomes are ground and mixed with water, and the starch is separated by passing the mixture over a fine screen. The liquor which passes through is allowed to settle in tanks, after which the deposit is washed and finally dried. The whole operation occupies about three days (3). Clevenger states that the mill produces about 24,000 pounds per week. We are indebted to Mr. J. F. Clevenger, of the U.S. Bureau of Chemistry, for sending to the Pharmaceutical Society's Museum a sample of Florida arrowroot. I have examined this specimen, and have compared it with the



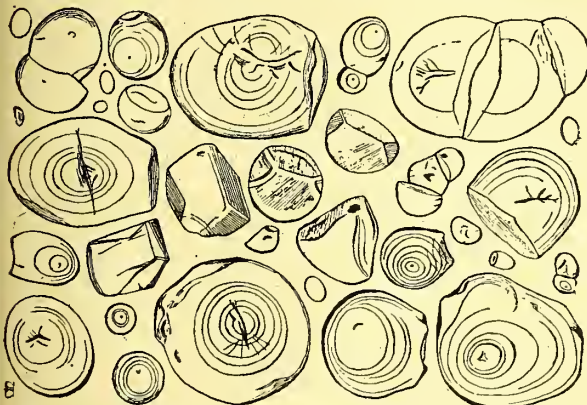
with the type specimen of *Z. integrifolia*, Aiton, which was described in 1789. Our specimens agree exactly with that named *Z. floridana*, A. De C., by J. K. Small, who considers this plant to be identical with *Z. integrifolia*, Aiton. After examining for myself the actual type and comparing it with Small's plant, I feel some doubt as to the identity of the two plants. Aiton's plant has leaflets which are not linear-lanceolate like those of Small's plant, but widen towards the apex, giving them an oblancoate form; I have made tracings of four of the leaflets of Aiton's plant, and if these are compared with the drawings of the leaflets of Small's plant the difference will be evident. The margin of the leaflets of Small's plant are also distinctly recurved, while Aiton's plant does not show this character. It is impossible, at present, to compare Small's plant with De Candolle's type at Geneva, but one may provisionally refer to the plant as *Zamia floridana*, De C., as named by Small. This *Z. floridana* is a short-stemmed plant resembling a tree-fern or palm with a crown of large, pinnate, coriaceous leaves. The stem rarely exceeds eighteen inches in height and the leaves are from eighteen inches to one yard in length and have twenty-eight to forty leaflets, each of which has ten to sixteen parallel veins (2). The plants are dioecious; the fruiting cones are markedly umbonate and have seeds with bright red coats, which show between the scales as the cones ripen. The characters of the leaflets and their venation are shown in (2) and (3). A transverse section of the tuberous stem shows a large central pith surrounded by a single ring of bundles, consisting of a yellowish xylem and a pale-coloured phloem separated by a cambium. Between the bundles are wide medullary rays leading to the very wide cortex. The stem is protected on the outside by a thin layer of cork. Scattered throughout the section are numerous mucilage ducts appearing as reddish points or short lines; in the cortex there are also numerous yellowish leaf-trace bundles running in all directions. Clevenger states that the plants used by the manufacturer are wild plants growing near Miami, Florida, and are collected by the local residents. The undried rhizomes are ground and mixed with water, and the starch is separated by passing the mixture over a fine screen. The liquor which passes through is allowed to settle in tanks, after which the deposit is washed and finally dried. The whole operation occupies about three days (3). Clevenger states that the mill produces about 24,000 pounds per week. We are indebted to Mr. J. F. Clevenger, of the U.S. Bureau of Chemistry, for sending to the Pharmaceutical Society's Museum a sample of Florida arrowroot. I have examined this specimen, and have compared it with the

starch from our specimens of *Z. floridana*, A. De C., and find that they agree in all respects, and also with an old-commercial specimen which was found among some duplicates belonging to the Museum and presented to the Society many years ago by Mr. W. Hodgson, jun., chemist and druggist, of Philadelphia.

The starch of *Z. integrifolia*, Ait., has been described by E. T. Reichert in 1913, but there are no means of assuring oneself that his starch actually came from *Z. integrifolia*, Ait., beyond the fact that it came from a plant so named in the Botanic Garden of the Univer-

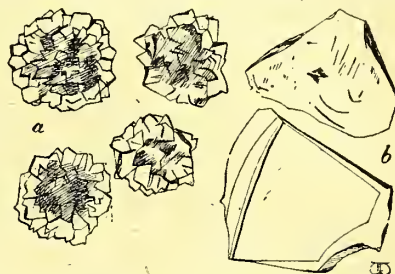


sity of Pennsylvania. His description of the starch is as follows: "In form the grains are simple, with the exception of some compound grains of few components. There are a few aggregates or clumps. Well-marked pressure facets are found on some grains. The grains are often irregular as the result of depressions on the surface, of variations in the length of the sides, or of protuberances, chiefly in the form of a conical projection at the proximal end. The conspicuous forms are the almost round, ovoid, ovoid with distal end squared, dome-shaped, rounded, triangular, and ellipsoidal. There are also hemispherical, lenticular, and various incidental forms. The hilum may be observed as a clear, round, or elliptical spot, usually eccentric. The lamellae are not distinct, but in some grains eight to fourteen may be counted. The grains vary in size: the smaller 6 by 5 μ , the larger 40 by 38 μ in length and breadth. The common size of the nearly round forms is 16 by 15 μ , of the ovoid 32 by 18 μ , and of the dome-shaped 20 by 16 μ in length and breadth. The degree of



polarisation is high to very high." On the assumption that *Z. floridana*, De C., and *Z. integrifolia*, Ait., are identical plants, this description appears to have been quoted by both J. F. Clevenger (3) and by A. Viehoveer (5), who give Reichert's data as representing the starch known as Florida arrowroot. I find, however, that the starch does not agree in all particulars with Reichert's description. It consists of grains, the majority of which are compound, consisting of from two to eight

grains, many of them being formed of three grains arranged in a row. In the commercial specimens most of these compound grains are broken up into their components, and as a result there are present numerous hemispherical or dome-shaped grains, and also a number which have large flat faces and slightly rounded ends, these being grains from the middle of a row of three. The hilum is not well marked, and in the fresh starch striations are rarely visible. The other histological characteristics given by Reichert as to shape, hilum, lamellae and polarisation, agree with Florida arrowroot. In the commercial specimens both hilum and striations are commonly well marked, and radiating fissures are also present; this is due to the effects of washing and drying, and is a common feature of commercial starches as compared with the same starches taken freshly from the plant. (Compare the illustrations.) The size of the grains I find to reach a larger maximum than that given by Reichert; there are a number of grains measuring from 40 up to 75 μ in either direction, whereas Reichert gives no measurements greater than 40 μ . Another feature of the commercial starch which appears to have entirely escaped the notice of other observers is the presence in it of very characteristic cluster crystals of calcium oxalate and of a little sand. These crystals



by shaking one or two grammes of the starch with chloroform and centrifuging the suspension, when the starch rises to the surface, while the crystals collect at the bottom of the tube. The crystals thus separated form a valuable means of confirming the identity of the starch. Crystals of calcium oxalate have also been found in other starches of cycads, and have been recorded by Planchon and Juillet as occurring in the starch from *Cycas neocalidonica*, Lind; in this case, however, the crystals are mostly prismatic, with a few clusters intermixed. Determinations of the mineral constituents of Florida arrowroot are in process of completion, and I hope to publish the results shortly.

SUMMARY.

1. The plant yielding Florida arrowroot is that named *Zamia floridana*, A. De C., by J. K. Small, whose specimen from Miami is in the British Museum.
2. It seems unlikely that Small's *Zamia floridana*, A. De C., is identical with *Zamia integrifolia*, Aiton, the type specimen of which is also in the British Museum.
3. The identity of Small's *Zamia floridana*, A. De C., with De Candolle's specimen needs further investigation.
4. It is impossible to know whether the *Zamia* starch described by Reichert is from *Zamia integrifolia*, Ait., or some other *Zamia*.
5. Reichert's descriptions of *Zamia* starch appears to have been adopted by Clevenger and Viehoveer as representing the starch of Florida arrowroot, and one cannot be certain that this is so.
6. The present paper contains a description of the commercial starch and of the starch from Small's *Zamia floridana*, A. De C., and shows that they are identical, the presence of typical calcium oxalate crystals being a useful new means of confirmation.

DISCUSSION

Professor GREENISH said that the Society was much indebted to Mr. Wallis for threshing out this very interesting problem, which had arisen during the rearrangement of the starches in the Society's Museum. Additional specimens of starches were written for and received, and their examination by Mr. Wallis led to his investigating this question. (Applause.)

The PRESIDENT, in introducing the author of the next two papers, remarked that Mr. Maplethorpe had done

excellent work in the Society's laboratory and in rearranging the specimens in the Museum. The next paper was :—

An East Indian Dupper

By CYRIL W. MAPLETHORPE

[ABSTRACT]

An interesting exhibit has recently been presented to the Museum by Mr. G. B. Francis. This is a "dupper," or skin bottle, in which castor oil was formerly imported from India. Mr. Francis informs me that it was "formerly used for shipments from India, and is anything up to 150 years old. Its capacity is somewhere about five to seven gallons, and I believe it originally contained castor oil. It is damaged on one side. It was found when Heaton & Co. cleared out from Bishopsgate Street some seventy years ago, and has been in my possession forty-five years. It is quite probable that it is the only one now in existence, although they were common enough in the days of the old East India Company." In a further letter, Mr. Francis says that as far as he knows "duppers" have not been used as packages since quite early in the last century. The only reference I have been able to find in the old works on materia medica is that of Thomson, published in 1843. Mr. C. J. S. Thompson, Curator of the Wellcome Historical Medical Museum, kindly supplied me with the following information: "The proper name of these large leather bottles, which are made of raw hide, is 'dubber,' or 'dubba.' I believe they were originally used in India for holding ghee or oil, and they were afterwards used at the time of the East India Company for exporting castor oil. These leather bottles were made to hold from 20 to 80 lb. weight." Watt, in his Dictionary of the Economic Products of India, 1890, says that "formerly all ghi was packed for local use in earthen jars and for transport to a distance in leathern cases called 'kuppas.' In Madras, Rajputana, and Sind, however, though the kerosene tin is gradually superseding the older method, skin 'kuppas' are still extensively employed." It seems, therefore, that the terms "dupper," "dubba," and "kuppa" all refer to the same vessel.

The PRESIDENT, in thanking the author of the paper, added that by a coincidence Mr. G. B. Francis had been in the Society's premises during the greater part of that day in the course of his honorary duties as an auditor. Mr. Maplethorpe then read :—

A Note on Coto Bark

By CYRIL W. MAPLETHORPE

[ABSTRACT]

Coto bark was first sent to Europe about 1873 from Bolivia under the name of coto-cinchona. Its botanical source was unknown, but the plant producing it was believed to belong to the family Laurinæ. It rapidly gained a reputation as an astringent, but, partly owing to the difficulty of obtaining genuine bark, it fell into disuse, and in 1876 was replaced by a similar bark, also imported from Bolivia. This bark, which was called paracoto bark, was for some years commonly sold for coto bark. Rusby gives an outline of the history of coto bark from the American standpoint. He says that in 1835 both coto and paracoto barks were readily procurable in America, both of them being obtained from Germany. All that was then known of their geographical origin was that they were collected in Bolivia. In 1835 he went to South America with the object partly of discovering the district in which coto bark was collected, and also the tree yielding it. While in La Paz, however, a Jesuit priest gave him a leaf and fruit which, he said, belonged to the coto tree. These were sent to a German university, and it was there stated that the tree from which they were obtained was probably the source of coto bark. Rusby, however, in view of his later discoveries, thinks it was probably from the tree producing paracoto bark. In 1887, Rusby observed that the American market was full of spurious coto barks. Coto and paracoto barks were scarce, and by 1900 it was impossible to obtain any genuine barks on the New York market. Between 1900 and 1920 he never saw a pound of genuine coto bark offered for sale in New York. Supplies of both the barks appeared to be going to Germany because cotoin and paracotoin were always obtainable

there. During this interval, however, spurious barks were offered for sale as coto and paracoto, and manufacturers used these in the preparation of extracts. Most of these substitute barks appeared to belong to the family Laurinæ, to which it was believed the true coto belonged. In 1919 or 1920, Messrs. Demiston and Co., of La Paz and New York, received a small shipment of genuine coto and were able to obtain some information as to the coto district in South America.

For some time Dr. Rusby had contemplated an expedition to South America, and in 1920 he appealed to the H. K. Mulford Co., of Philadelphia, Pa., for assistance. They readily responded, and the expedition was equipped and placed under his command. It was known as the Mulford Biological Exploration Expedition, and the objects were to study anything that was likely to be of medicinal importance. One of the main objects was to find the tree producing coto bark. The extent of the activities of the party can be judged by the fact that they collected over 3,000 specimens of plants and over 100,000 specimens of insects. The work of the expedition was carried out in the Amazon basin and on the eastern slopes of the Andes in Bolivia. Collecting work commenced near Quime at an altitude of about 15,500 feet. The expedition travelled downwards through Quime to Canyamina, which is about 3,000 feet above sea level. They stayed for some days at Canyamina and then moved on to Espia. A large collection of specimens was secured there in spite of unfavourable conditions. The next stop was at Huachi, where they stayed for ten days. Dr. Rusby left the main party here, and travelled by river to Rurenabaque. In the district round Rurenabaque he collected various specimens of cocillana bark and its substitutes. With reference to coto bark, the headquarters of the party were at Huachi, which is situated on the Beni River. In view of Dr. Rusby's illness, Dr. White, of the Brooklyn Botanic Garden, was deputed to collect the specimens relating to coto. Sr. Mostaja, of Huachi, whose Indians had collected coto bark, assisted Dr. White in his investigations by supplying him with Indian guides. Dr. White, after a difficult journey, was led by the guides to the mountains south of Huachi, where he found trees from which barks had been collected for commercial purposes under the name of coto. He took specimens from these trees. The barks were known under various native names, and the one described as "Coto piquante" or "Coto fino" appeared to be the genuine bark. The others, known generally as "Coto ordinario," are amongst the substitutes which have been offered from time to time as coto and paracoto barks. Although it was believed at first that the genuine paracoto had been discovered, later evidence shows that it has not yet been located. After examination of the specimens Rusby gives the name *Nectandra coto* to the coto plant, and that of *Ocotea pseudo-coto* to one of the spurious specimens. He names them with an admission of some slight doubt. The bark of *Nectandra coto* (Rusby) has been examined chemically by Harvey A. Seil, and the following results recorded :—

Total ether extract	...	...	...	24.83 per cent.
Volatile oil	...	...	...	1.89 per cent.
Ash	...	...	...	1.67 per cent.

Two new alkaloids, parostemine and parosteminine, were found in the drug. *Nectandra coto* is a true coto, since it contains cotoin. Mr. E. M. Holmes has kindly presented the museum with three specimens of coto barks, which he received from Dr. Rusby. The bark of *Nectandra coto* is softer and more fibrous than the original museum specimen, and there is a distinct difference in odour. One of the two pieces of bark, of which the specimen sent by Mr. Holmes consists, also shows differences in structure when compared with the museum specimen of true coto. As the structure of these barks is presumably being investigated in the United States, I have not proceeded any further with the microscopical examination.

DISCUSSION

Professor GREENISH emphasised the remark of the author of the paper to the effect that examination of these barks was probably proceeding in the United States, and could hardly, in the circumstances, be

undertaken here. Anyone who had had much to do with coto bark must be aware of its penetrating odour. When, however, we took the barks obtained in this expedition, the first two specimens had not the characteristic odour of coto. It was very likely that there were several species of *Nectandra* yielding barks containing cotoin. One of the two specimens in question corresponded fairly closely with the Museum specimens, and the other showed distinct differences. It appeared that Dr. Rusby had made a considerable step in advance, but he might not have discovered the tree yielding the old coto bark of 1875-80.

The PRESIDENT, there being no further discussion on this paper, called upon Professor Greenish to read:—

Specimens of *Cassia acutifolia*, Delile

By H. G. GREENISH, D.Sc., F.I.C., Ph.C.

[ABSTRACT]

The Society's Herbarium of medicinal plants has recently been enriched by a number of specimens of *Cassia acutifolia*. As the result of a request that I addressed a short time ago to the Director of the Commercial Intelligence Branch of the Central Economic Board at Khartoum, Mr. G. E. Massey, the Government botanist, sent me excellent specimens of the plant, some of which were collected near Khartoum, and others in Berber and Dongola. Those from the Khartoum district were collected from self-sown plants which had received no water except from the rains that fell during August and September; those from Berber and Dongola were also from wild plants. Specimens of the Khartoum plants were also sent by Mr. Massey to Mr. Holmes, and some of these Mr. Holmes has presented to the Herbarium. It is well known that some of the senna grown near Khartoum is cultivated to the extent of having water supplied to the plants, and specimens of such cultivated plants of *Cassia acutifolia* were brought for me a few months ago from Khartoum by Professor Perrot, of Paris. The Society is therefore in possession of a fairly representative collection of the senna plants from which the Sudan or Alexandrian senna of commerce is obtained, and I hope later on to receive specimens from other districts. The great value of these specimens lies in the fact that they provide sufficient material not only for preservation as herbarium specimens, but also for investigation for which a certain amount of authentic material has to be sacrificed. Alexandrian senna, grade for grade, always commands a higher price than Arabian senna. Whether there is any superiority in the therapeutic action of the Alexandrian variety or in the amount of active constituents that it contains, to justify the higher price is more than I can say, but the fact remains that an admixture of the cheaper Arabian senna with the dearer Alexandrian may constitute an adulteration. The detection of such adulteration may be and often is an exceedingly difficult problem, the solution of which would be much facilitated if any constant structural difference could be detected. Statements of certain observed differences have from time to time been published, such, for instance, as the number of hairs, the shape of the stomata, the ratio of epidermis to mesophyll in the transverse section, and so on. It might at first sight appear that the difference in the shape of the leaflets would suffice, but this is not so, as the Alexandrian (Sudan) plant occasionally produces leaflets that are indistinguishable from the Arabian. With the material now at our disposal we are in a position to commence this investigation, and I hope I shall be able to report upon the results in due course. I should be glad if this meeting would express its indebtedness to Mr. Massey for the trouble he has taken in collecting and forwarding material. Mr. Massey is a pharmaceutical chemist.

VOTE OF THANKS

The PRESIDENT moved a vote to Professor Greenish, Mr. Wallis, Mr. Maplethorpe and Mr. Massey. Mr. MELLISH, in seconding, remarked that all these gentlemen were closely associated with 17 Bloomsbury Square; and Professor GREENISH, in acknowledgment, said that Mr. Wallis had done a considerable amount of work in connection with his paper.

North British Branch

The fourth evening meeting of the session was held at 36 York Place, Edinburgh, on March 7, Mr. G. Shiach Kitchin, chairman of the Executive, presiding. The first communication was on

Opium Powder: Loss of Morphine on Keeping—I.

By D. B. DOTT, F.I.C., F.R.S.E., Ph.C.

[ABSTRACT.]

It has long been known that morphine is, under certain conditions, prone to oxidation, oxymorphine being formed, the salts of which are very sparingly soluble. The reaction is observed on adding solution of potassium ferrieyanide or of hydrogen peroxide to solution of morphine hydrochloride. J. Bougault ("Comptes Rendus," 134, 1361; "Y.B. of Pharm.," 1902, p. 112) mentions that the juice of *Russula Delica*, mixed with solution of morphine hydrochloride, speedily causes turbidity due to precipitation of oxymorphine hydrochloride. He describes the action as being that of a vegetable ferment. It is only recently that papers have been published stating that powdered opium, when stored under ordinary conditions, suffers serious loss in morphine content with comparative rapidity. The following results are given, as a preliminary contribution to the subject, the assays being done by a slight modification of the B.P. method. The percentages are liable to vary by differences in manipulation and scarcely noticeable alterations in the conditions.

A		B		C		D (Extract)	
Date	Morphine	Date	Morphine	Date	Morphine	Date	Morphine
21. 6.22	13.80	14. 9.22	16.88	11.10.22	11.66	14.11.22	23.38
11. 8.22	13.78	30. 9.22	16.38	12.11.22	11.90	25.12.22	23.68
15. 9.22	13.30	2.11.22	16.83	5. 1.23	11.42	25. 1.23	23.68
17.10.22	13.16	15.12.22	17.14	14. 2.23	11.70	27. 2.23	23.68
27.11.22	13.38	22. 1.23	16.86	—	—	—	—
8. 1.23	12.99	21. 2.23	17.02	—	—	—	—

The sample A is the only one which shows any deterioration, and it is not very conspicuous. It was an adulterated or damaged opium, as indicated by very slow filtration and a turbid filtrate. The exact temperature of drying had not been noted, but it was over 60° C. The other samples were all dried at 95°-100°. C. was reduced in strength by mixture with sugar of milk. Further experiments are required, especially with opium dried at 60°, but it seems evident that it is practicable, with proper precautions, to prepare an opium powder which will show no appreciable loss of morphine after a lapse of several months.

This paper was followed by:—

Note on a Sample of Opium from the Growth of 1852-1853

By HENRY E. WATT, D.Sc., F.I.C.

[ABSTRACT.]

Some time ago there came into my possession a rounded flattish cake of opium bearing a label with the inscription:—"No. 7 C., Candesh opium. Growth of 1852/53. Weight 21½ Tolas." According to Pereira's "Materia Medica" (Vol. 2, Part 2, p. 2094), Candesh opium is in round, flattened cakes, weighing about ½ lb. each. It is nearly black, is hard and brittle, with a gritty or granular fracture. It yielded Mr. E. Solly 72 per cent. of soluble matter, and about 7 per cent. of morphine. In "Pharmacographia" (2nd ed., p. 61) it is stated that a sample of Khandesh opium furnished by the Indian Museum yielded 6.07 per cent. of morphine. In regard to the weight of my sample, it is interesting to note that the "tola" or "tolla" is an Indian unit of weight equivalent to 180 gr.; hence the sample weighed at the time of manufacture 70 years ago, 21½ x 180 = 3,870 gr. = 251 grams. (approximately). The present weight is 241 grams, so that the loss in 70 years is 251-241=10 grams.=4 per cent. (approximately); it is highly probable that this loss is entirely due to moisture, as the sample did not appear to have been damaged. When sharply struck with a hammer, the sample broke readily and the fragments were easily reduced to a fine powder. Portions of the latter, assayed by the process of the British Pharmacopœia, 1898, gave

7.6 per cent. of anhydrous morphine. Allowing for moisture lost since the year of manufacture, this is equivalent to 7.3 per cent. approximately, calculated on the original weight. I think it probable that this sample of opium hailed from the Indian Museum, where it may have been a former companion of the samples analysed by Solly and by Flückiger and Hanbury. Comparing my figures with those of the authorities I have quoted, and noting their close agreement, it may be concluded that we are still very far from determining the life or even the half life of morphine in opium. I should like to record my indebtedness to Mr. J. Rutherford Hill, Ph.C., who has supplied me with many interesting references and also passed on to me part of a very useful communication from Mr. E. M. Holmes, F.L.S. My thanks are also due to T. & H. Smith, Ltd., Blandfield Chemical Works, Edinburgh, for permission to publish this note.

DISCUSSION

Mr. LOTHIAN said that if loss of morphine did take place it was rather remarkable that it had never been noticed before.

Mr. HILL considered it improbable that the morphine was destroyed through oxidation, as it was a fairly stable alkaloid. The fungus *Russula*, though it did not commend itself to the British palate, was pretty largely used on the Continent as an edible fungus. It was said to contain an acid juice which gave it rather a tart taste. Almost certainly this acid juice contained an active enzyme, and in the acid medium might quite probably attack the alkaloid in the opium. The comparatively low morphine content of Indian opiums was more or less attributed to the action of fermentation enzymes, owing to the method of collecting the opium, under which it remained for a considerable period in a semi-solid condition. The juice of *Russula Delica* might act in a similar manner. With regard to Dr. Watt's communication, though he had not been able to trace quite definitely the history of the sample, there was a strong probability that it originally formed a portion of the opium collection in the East Indian Museum in London and distributed when that museum was finally closed. Several samples of opium from that museum could now be seen in the Society's museum at Bloomsbury Square.

Mr. DOTT urged that Dr. Watt's interesting communication was still further evidence in favour of the non-deterioration of opium in morphine content through lapse of time. With regard to Indian opium, it was quite different in consistence and appearance, and being dried at ordinary temperatures, it remained in a moist condition so long as to lead to deterioration.

The next communication was on

Easton's Syrup

By A. E. KELLY, M.P.S.

[ABSTRACT.]

Though Easton's syrup is not given as an official synonym for the syrup of phosphate of iron with quinine and strychnine of the British Pharmacopœia, it is the latter preparation to which this note refers. Recent journalistic correspondence has raised the old complaint as to difficulty with this syrup, owing to its solidification. Some experiments resulted in a method now submitted, which has always proved satisfactory. The formulas in the 1898 and the 1914 Pharmacopœias are identical, with a slight difference in the directions. In the 1898 formula the quinine sulphate is added directly to the iron and phosphoric acid solution. In the 1914 formula the quinine sulphate is previously mixed with water and then added to the iron and phosphoric acid solution. This mixing with water is in the right direction, but is not always successful. The following process gives a better result:—

Iron wire	...	...	...	600 gr.
Concentrated phosphoric acid	...	...	...	10 fl. oz.
Strychnine	...	...	...	40 gr.
Quinine sulphate	...	...	...	2 oz. 165 gr.
Syrup	...	...	...	112 fl. oz.
Distilled water, sufficient to produce 1 gallon.				

Dissolve the iron wire in the phosphoric acid previously diluted with an equal volume of distilled water, filter and make up to 20 fl. oz. by pouring distilled water over the filter paper. Dissolve the strychnine in the iron solution. Shake up the quinine sulphate with 25 fl. oz. of water, and add just sufficient of the iron solution to dissolve the quinine. Filter if necessary. Add the simple syrup, constantly stirring, so as to mix thoroughly. Finally add the remainder of the acid iron-strychnine solution, and make up to one gallon. The former experience of difficulty due to solidification and crystallisation has never recurred since this process was adopted. Stored in 10-oz. amber-tinted bottles in a cool cellar, Easton's syrup so prepared, with the addition of a few drops of hypophosphorous acid, keeps exceptionally well. The acid iron solution, without the strychnine and preserved with a little hypophosphorous acid, can be kept ready for use. With such a solution kept ready, Easton's syrup can be made as required in a few minutes. By using strychnine hydrochloride (48.69 gr. to the gallon) instead of the alkaloid, and dissolving in a little hot water, there is a further saving of time. As quinine sulphate is used, there seems no reason why strychnine hydrochloride should not be used. This same acid iron solution can be used for the extemporaneous preparation of the official syrup of phosphate of iron, which has the same iron content as Easton's syrup.

DISCUSSION

Mr. LOTHIAN mentioned that forty years ago Easton's syrup gave trouble owing to the quinine salt crystallising out, the salt becoming solid or semi-solid. Possibly on this account the amount of quinine phosphate had been reduced from about 1 gr. to $\frac{2}{3}$ gr. per fluid ounce. The official formula was in the main satisfactory, but there was a tendency to crystallisation in winter. At low temperatures the syrup appeared to be in a state of supersaturation as regards the quinine salt. In some bottles a small nucleus appeared and crystallisation took place. In other bottles of the same batch no crystallisation took place. He did not quite see how the *modus operandi* suggested by Mr. Kelly would obviate crystallisation. With regard to the nine-year-old sample shown by Mr. Kelly, the discoloration (as first pointed out by Groves) was due to caramelisation and could not be prevented. In a syrup kept a year or so it was very slight. This referred to Easton's syrup kept in full closed bottles. If solutions of sugar and phosphoric acid are prepared and kept, the same appearance occurs, and the coloration is proportional to the concentrations of sugar and phosphoric acid employed, and also, of course, to the time kept. The slight deposit in the syrup had been shown by Lyon some years ago to be some form of ferric oxyphosphate. It might be said there was a winter trouble and a summer trouble with this syrup. The winter trouble was the liability to crystallisation and the summer trouble the liability to caramelisation.

Mr. BOA said Easton's syrup appeared to be a subject of perennial interest. He would not admit that the official syrup of phosphate of iron with quinine and strychnine was Easton's syrup, or that the latter name was a proper synonym for the official syrup. In the original formula the ferrous phosphate was freshly prepared by double decomposition with ferrous sulphate and sodium phosphate. In washing the ferrous phosphate there was certain loss, so that the syrup contained only $\frac{1}{2}$ gr. of ferrous phosphate in each fluid drachm, as compared with 1 gr. in each fluid drachm in the official syrup. It was also made by using freshly prepared quinine phosphate. The original Easton's syrup was more palatable. The increased iron content in the official syrup gave it an unpleasant chalybeate taste.

Mr. GLASS stated he had never found the official formula unworkable, although there was a tendency to precipitation in the cold. By a slight modification in the method this could be overcome. It was best to have the syrup kept in small bottles quite full. It was important also to use pure cane sugar. It had been pointed out by Cowie that commercial sugars sometimes contained ultramarine, and such sugars were very

objectionable for making acid chemical syrups. Cowie had suggested the addition of ten per cent. of glucose to Easton's syrup, and also to syrup of ferrous iodide.

Mr. HILL considered the point was that Mr. Kelly found from experience that, while he had trouble from crystallisation in following the official formula strictly, this trouble had been entirely obviated by the slight modification which he described. Whatever the reason might be, it was a distinct advantage to have a formula which avoided any trouble. The plan of having a standard solution of ferrous phosphate always ready seemed to obviate the trouble regarding caramelisation of the syrup on standing. It could always be made extemporaneously, as also could the official syrup of ferrous phosphate. It was true the official formula differed from that of the original Easton's syrup, but it was also the case that prescribers sometimes ordered the syrup by the official name and sometimes by the name "Easton's syrup." It was better, therefore, to secure uniformity in dispensing by making Easton's syrup a recognised synonym for the official syrup.

Mr. KELLY said he thought crystallisation was more likely when the solution in dissolving the quinine was too acid. By his modification that was avoided. On one occasion he was asked to explain why he dispensed a syrup which was clear and colourless, the prescriber being of opinion that it ought to be brown. It was not uncommon to find prescriptions ordering syrup ferri phosph. co. cum quin. et strychn. (Easton), when undoubtedly they intended the official syrup. It would be better to make the name "Easton's syrup" synonymous with the official designation.

The final communication was on

Phosphorus Pills

By ERIC A. M. KNOTT, Ph.C.

[ABSTRACT]

Phosphorus is not now frequently dispensed, and it is usually in pill form. An official formula for phosphorus pills first appeared in the 1874 Addendum to the British Pharmacopœia. It consisted of phosphorus, tolu balsam and beeswax. In the 1885 Pharmacopœia this formula was modified by directing that one-third of curd soap should be incorporated when the mass was dispensed in pill form. In the 1898 Pharmacopœia the tolu balsam was replaced by lard, and kaolin and gum acacia take the place of curd soap when the mass is dispensed in pill form. The formula in the 1914 Pharmacopœia, containing oil of theobroma, wool fat and sodium sulphate, is essentially different. In the first three formulas the mass was directed to be kept immersed in water in a bottle until formed into pills, but the 1914 formula is such that this is impossible, because the mass contains the water-soluble sodium sulphate. The present official mass can be made without much difficulty, but most dispensers, when making a dozen or two of the pills, have trouble in piping, cutting and rounding, owing to the mass so readily softening and even melting in the hands. The following formula is suggested as being a more expeditious method; the mass is easier handled and has the further advantage that it can be kept immersed in water unchanged for months:—

Phosphorus	...	...	...	1 gram
Calcium phosphate	...	...	...	69 grams
Wool fat	...	...	...	30 grams
Carbon disulphide	...	...	...	20 millilitres

Place the wool fat in a mortar, dissolve the phosphorus in the carbon disulphide, triturate the solution and the wool fat together, incorporate the calcium phosphate, and work into a suitable mass. The mass may be kept immersed in water, or rolled, cut into pills, rounded and varnished. Where suitable, when ordered in combination with other ingredients, the equivalent weight of calcium phosphate might be omitted, thus securing a pill of small size without loss of active constituent. Objection may be taken to the use of calcium phosphate on the ground that soluble acid phosphate may be formed in the alimentary canal. It could, no doubt, be replaced by kaolin, but in practice it has been found

that a mass made with kaolin is less satisfactory to handle and tends to crumble.

DISCUSSION

Mr. GLASS said he had adopted a formula somewhat similar to that suggested by Mr. Knott. He employed lanolin and added a little liquorice powder.

Mr. BOA said this formula was a good suggestion. The official formula had never been a good one, and the present official one seemed the worst of all. It contained too many ingredients, and was a greasy and unmanageable form. Calcium phosphate rather than kaolin was an advantage, because it made the mass much nicer to work. It also did away with the addition of liquorice. It was advisable to avoid adding any organic powder in the case of a pill containing phosphorus.

Mr. HILL pointed out that one distinct advantage of this pill mass was that it was ready for use and could be kept in good condition immersed in water. The official mass could not be so kept, nor could a mass prepared as suggested by Mr. Glass.

On the motion of the chairman, a cordial vote of thanks was awarded to the authors of papers.

Dangerous Drugs

There followed a private conference on practical difficulties arising under the Dangerous Drugs Act Regulations and also on the Dangerous Drugs and Poisons (Amendment) Bill. At the close of the conference it was moved by Mr. Kelly, seconded by Mr. Elliot, and agreed, "That it be remitted to the Executive of the North British Branch to take what steps might seem desirable to secure suitable amendments on the Bill now before Parliament, and consider any other points of difficulty requiring attention." Attention was directed to additions to the library and museum, and, on the motion of the chairman, cordial votes of thanks were awarded to donors of books and specimens.

Branch Meetings

Dundee.—A meeting was held in the Technical College, Dundee, on March 8, for the purpose of forming a local branch of the Pharmaceutical Society under the Council's organisation scheme. Mr. C. Stephen, Ph.C., presided. Mr. J. J. Forbes (vice-chairman of Executive, North British Branch) addressed the meeting, giving an explanation of the scheme. It was proposed to begin with, to have five branches in Scotland, one for Inverness and North thereof, another for Aberdeen and the North-East of Scotland, another for Dundee and the East and Central area of Scotland, another for Glasgow and the South-Western area, and a fifth for Edinburgh and the South-Eastern area. It might be necessary to increase the number of branches later, but the interests of the different districts might be met by holding meetings in different towns. He desired to congratulate Dundee in having in the Technical College an excellent and admirably equipped School of Pharmacy. Mr. J. Rutherford Hill briefly sketched the history of pharmaceutical organisation. There were factors, such as geographical conditions, transport difficulties and the massing of the population in a few centres in Scotland, which made local organisation not easy to maintain in some areas. He desired to express to Mr. Robertson Milne his appreciation of the excellent arrangements he had made for the meeting. It was appropriate that such a meeting should be held in the Technical College, and they were much indebted to Principal Lumsden and the managers for courteously granting the use of the botany lecture-room. Mr. J. Robertson Milne said that, though not quite clear as to how the setting up of the local Branch would increase the activity they desiderated in their local Association, he believed it was a move in the right direction. The following officers were appointed:—*Chairman*, Mr. J. R. Milne (Dundee); *Vice-Chairman*, Mr. J. J. Forbes (Perth); *Secretary and Treasurer*, Mr. John Anderson (Dundee); *Committee*, Mr. Thos. Harley (Perth), Mr. J. H. Thomson (Lochee), Mr. C. Stephen (Dundee), Mr. J. Jack (Arbroath), Mr. M. Macfarlane (Forfar).

Trade Report

42, Cannon Street, E.C.4, March 15

So far as the Mincing Lane produce markets are concerned, the volume of business done has fallen off compared with last week. An outstanding feature is the strong and active demand for sugar at higher rates. Rubber has receded about 1d. per lb. and is unsettled. Desiccated coconut is much dearer. Spices are quiet with Zanzibar cloves cheaper. Seeds have mostly been stagnant for a lengthy period: canary, however, is firm. Cardamoms are a strong and dearer market. Menthol continues inactive, with arrivals from the Continent a disturbing feature. Crude and refined antimony are much dearer. Mercury has advanced about £2 per bottle, but the market is a puzzle. Mercurials are unchanged. Vanilla at auction sold at full prices last week. Turmeric is dearer, and Japan wax is rather cheaper. Japanese refined camphor is slow in the absence of Continental demand. French celery seed has advanced at the source on American buying. Culvers root and hydrastis are the turn cheaper. The yield of new cod-liver oil continues good, and prices are easy. Essential oils show rather more inquiry from consumers in some directions, and some of the perfumery chemicals, like coumarin, heliotropine and musk xylol, are higher owing to the stoppage of Continental supplies.

Higher	Firmer	Easier	Lower
Acetic acid	Acid oils	Acetone	Anise (Russian)
Antimony	Barbitone	Clove oil	Cod liver oil
Coconut	Lithopone	Cloves (Zan.)	Culvers root
(desicc.)	Paraldehyde	Cod-liver oil	Dill seed (E.J.)
Coumarin	Potash prussiate	(Nor.)	Rubber
Heliotropine	Sandalwood oil	Cream of tartar	Sodium
Hexamethylene	Sulphonol	Naphtha	prussiate
Mercury		(solvent)	Wax, veget.
Naphthalene		Peppermint oil	(Jp.)
Orange oil		(H.G.H.)	
(W.I.)			
Pitch			
Potash			
perman.			
Sodium			
benzoate			
Sugar			
Turmeric			

A drug auction will be held next Thursday, March 22.

Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday :-

	Par value	March 7	March 14
Amsterdam, chqs. fl.	12.107	11.891-11.891	11.89-11.89½
Berlin ... marks	20.43	95.000-95.500	97.500-98.000
Brussels, chqs. .. fr.	25.22½	89.15-89.25	89.55-89.65
Calcutta, rup.	2s.	16½d.-16½d.	16½d.-16½d.
Constantinople pstrs.	110	675-715*	650-680*
Greece	25.22½	438-442	420-425
Italy, sight lire	25.22½	98½-98½	98½-98½
Lisbon, sight escudo	53½d.	2½d.-2½d.	2½d.-2½d.
Madrid, sight ... pes.	25.22½	30.25-30.27	30.46-30.49
Montreal, cable ... \$	4.86½	4.77½-4.78½	4.79½-4.79½
New York, cable ... \$	4.86½	4.69½-4.69½	4.69½-4.69½
Paris, chqs. fr.	25.22½	77.55-77.60	77.20-77.30
Singapore t.t.	dollar	28½d.-28½d.	28½d.-28½d.
Switzerland fr.	25.22½	25.18-25.20	25.22-25.24
Vienna kr.	24.02	325.000-340.000	330.000-345.000
Yokohama, T.T. yen	24.58d.	24½d.-24½d.	24½d.-24½d.

* Nominal.

Cablegrams

NEW YORK, March 14.—Business is quiet. Mexican sarsaparilla has advanced to 25c. per lb., and balsam tolu to 80c. per lb. Oregon balsam of fr. is also higher at \$3.00 per U.S. gallon. Antipyrine has advanced to \$2.75 per lb. Peppermint oil in tins is easier at \$2.75, and hydrastis (golden seal) is cheaper at \$3.20. Belladonna root has been reduced to 12c., and eunonymus bark of root (wahoo) to \$1.00 per lb.

BERGEN, March 14.—The total catch of cod for the whole of Norway since the opening of the season amounts to 14,300,000, against 11,400,000 for the corresponding week of last year, and the yield of steam-refined medicinal oil is 28,910 hectolitres, against 22,960 hectolitres for the

same period of 1922. Price of finest new medicinal steam-refined oil of 1923 crop is easier at about 92s. per barrel, c.i.f. London.

Crude Drugs, etc.

ANTIMONY is dearer in sympathy with stronger reports from abroad, while foreign regulus in warehouse is now held for £28. Ordinary English brands are quite nominal, there being little or nothing available, but the price of special brands has been put up to £38. Crude is now £20 on the spot and £20 for March-April shipment.

BALSAM CANADA.—Spot stocks continue small, sellers quoting 6s. 6d. per lb.

BALSAM TOLU is in fair demand at 3s. 8½d. to 3s. 9d. per lb. on the spot.

BELLADONNA ROOT is worth about from 50s. to 55s. per cwt c.i.f. according to test. Belladonna leaves are offered at 6½d. per lb.

CALUMBA.—A fair quantity has been disposed of lately, and holders are asking about 10s. per cwt. for good bright natural sorts in small lots.

CAMPHOR.—Japanese 2½-lb. slabs are quiet at 3s. 9d. per lb., and for March-April shipment 3s. 5d. c.i.f. is quoted. Continental buyers have been off the market for some time past. Sellers of ¼-oz. tablets are asking 4s. 5d. per lb. on the spot, and March-April shipment is quoted at 4s. 0½d. c.i.f.

CARDAMOMS.—Since the auction was held last week the market continues strong and very full to advanced prices have been paid for export. Decorticated seed is now 4s. per lb.

CASCARA SAGRADA is steady, two-year-old bark offering at 72s. 6d., three-year-old at 75s., and four years upwards at 80s. per cwt. on the spot.

CHAULMOOGRA OIL.—Genuine is offered at 3s. 6d. per lb. on the spot.

CINCHONA.—At auction at Amsterdam on March 28 1,666 packages (1,394 bales and 272 cases) Java pharmaceutical (Succirubra) bark will be offered, weighing 93,204 kilos., with a total quinine content of 2,459 kilos.; of the above quantity 41,169 consisted of root bark. In addition, 24 bales Ceylon, weighing 3,131 kilos. and containing the equivalent of 72 kilos. quinine, will also be offered.

COD-LIVER OIL.—Our Bergen correspondent writes on March 12 :—The codfisheries at Lofoten and other districts in the neighbourhood are taking place under satisfactory conditions. The output of all the Norwegian codfisheries—compared with that of previous years—is as follows :—

	Catch of Cod	Yield of Steam refined cod-liver oil	Livers for Crude oil
		(Hect.)	(Hect.)
Mar. 3, 1923	9,400,000	19,159	4,485
Mar. 4, 1922	7,900,000	16,283	2,284
Mar. 5, 1921	9,500,000	16,900	2,900
Mar. 6, 1920	6,000,000	10,000	1,500
Mar. 8, 1919	3,800,000	5,200	1,100

Also last week the result was favourable. In consideration of the good results buyers have retired, and consequently the market is declining. 1923 non-freezing, steam-refined cod-liver oil is quoted at 90s. per barrel c.i.f. London. The remarkable reduction in the price is also partially due to the reduced value of the Norwegian kroner.

CULVERS ROOT is cheaper, offering at 1s. 8d. per lb. c.i.f. to arrive; spot market is bare.

DRAGON'S BLOOD.—Nine cases have arrived from Singapore.

ERGOT.—Small spot sales of Polish have been made at 2s. per lb.

GENTIAN continues quiet, the spot value being about 34s. 6d. per cwt.

HYDRASTIS.—Although sellers quote 16s. per lb., a shade less would buy on the spot.

INSECT FLOWERS.—Dalmatian are offered at from 295s. to 300s. per cwt. c.i.f. to arrive.

IPECACUANHA.—Cartagena is difficult to buy as the market seems bare of stocks; nominal price is 7s. 6d., and in Liverpool some is offered at 8s. Matto Grosso is 7s., Minas 6s. 6d., and East Indian 6s. 9d. per lb.

LIQUORICE ROOT.—Fair natural on the spot is offered at 32s. 6d. per cwt., and to arrive from Smyrna, 37s. 6d. c.i.f. is quoted. Decorticated is worth about 75s. per cwt.

LYCOPodium is quoted at 2s. per lb. on the spot.

MACE PASTE is offered at 6s. 9d. per lb.

MALE FERN EXT. can be had at from 5s. 6d. to 6s. per lb.

MENTHOL continues inactive on the spot, sellers of Kobayashi-Suzuki quoting 35s. per lb., and for March-April shipment sellers quote 30s. c.i.f.

MERCURY has steadily advanced since our last, due not only to a generally better trade demand, but to more restricted offers by dealers, who, moreover, have but little stock. The main strengthening factor has undoubtedly been the report, which is considered fairly reliable, that the Spanish mines have advanced their terms to £11 10s. per bottle delivered locally. On this basis, and allowing for all costs for shipment to this market, the rise which has taken place since our last, amounting to about 30s. per bottle, seems well justified. Towards the close of last week over £11 was already paid, and quotations on Wednesday this week were at £12 5s. to £12 10s. Some business was done recently for America prior to the rise. The latter has been assisted somewhat by some speculative buying. The February imports amounted to 5,665 bottles, against 1,406 bottles for February last year; the total for two months represents 7,472 bottles, compared with only 2,808 bottles for the same period in 1922.

NUTMEG OIL.—Expressed is offered at 5s. 3d. per lb.

NUX VOMICA is quiet, with Madras offering at 21s. per cwt. c.i.f. to arrive.

RUBBER.—Values have declined considerably since our last report, chiefly owing to the further heavy liquidations by weak holders. At one period there was a decline of 1d. per lb. within twenty-four hours. The temporary weakness in Singapore soon spread to this market, and America, taking advantage of the decline, has bought considerable quantities at the reduced parity. The reduction is traceable to a lack of confidence, due to the shipments from the East in the months of January and February being nearly 12,000 tons in excess of the exports over the same period last year. This factor, combined with the large spot offerings of "forward" rubber on this market, has had a very disquieting effect amongst operators. The deliveries last week were again substantial, viz., 2,346 tons, and arrivals totalled 1,187 tons, with a decrease of 1,159 tons in the stocks. Quotations (Wednesday, 5 p.m.):—Standard No. 1 crepe and ribbed smoked sheet, spot and March, 1s. 4½d.; April-June, 1s. 4½d. to 1s. 5d.; July-September, 1s. 5½d.; October-December, 1s. 5½d. to 1s. 5¾d. Balata, with the exception of the Iquitos character, remains very steady at full rates. W.I. sheet 3s. 9d., Venezuela block 3s. 5d.

SENEGA meets with a small inquiry at from 3s. 5d. to 3s. 6d. per lb.

SERPENTARY ROOT is offered at from 4s. 6d. to 4s. 9d. per lb.

SHELLAC.—Recent firmer Calcutta advices and much better deliveries on this side tended to have a steadying effect on the market, although there has not been a great deal of interest in forward positions, where sellers have not been at all eager. Owing to the good arrivals lately considerable quantities have been landed, and this should help consumers eventually in filling their needs at slight concessions, inasmuch as it is expected that the stocks will show at the end of this month a fairly heavy increase. Usual standard TN orange quality closed at 355s.; good to fine second orange, 390s. to 420s.; superfine, 450s.; AC cakey, 325s.; and GAL, 300s. The sales for delivery include March at 337s. 6d. and May at 332s. 6d., closing sellers at 2s. 6d. less.

SQUILL.—Fair pale quality is obtainable at 25s. per cwt.

STARCH PRODUCTS.—Farina is easier, with Japanese No. 1 offering at 15s. 6d. per cwt. on the spot. Dutch is 15s. per cwt. on the spot, and for prompt shipment 13s. 9d. f.o.b. is quoted. English rice starch crystals offer at £40, and Continental at £34 per ton. Superior Dutch dextrin 22s. 6d., No. 2 being 20s. to 21s. American maize is 14s. 6d. on the spot.

TONKA BEANS.—According to a recent crop estimate furnished by the United States Department of Commerce, Venezuela will produce between 200,000 and 250,000 lb. of tonka beans this year.

TURMERIC is dearer, fair Madras fingers being quoted at 50s. per cwt., and wormy at 47s. 6d. Bengal seems to be unobtainable.

VANILLA.—At auction on March 9 472 tins offered, and all sold at full prices for good quality, foxy and split being dearer. Of Seychelles, 428 tins offered and sold, comprising firsts, 6½ to 8½ in., 11s. to 12s. 6d.; 4 to 6½ in., 9s. 6d. to 11s.; lean, 3 to 5 in., 9s. to 9s. 6d.; poor keepers, 7 to 8 in., 10s.; 5 to 7½ in., 9s. to 10s.; 2½ to 5 in., 7s. to 8s. 6d.; good seconds, 6 to 7 in., 11s.; 2½ to 6 in., 9s. to 10s. 6d.; foxy and split, 7s. 9d. to 10s. 6d.; various, 8s. 6d. to 9s. 6d. Of Madagascar 44 tins offered and 23 sold, including firsts, crystallised, 6 to 7 in., 11s. 6d. to 12s.; fair, 6 to 8 in., 11s.; and seconds, 3 to 4 in., 9s. per lb.

WAX (VEGETABLE).—Japanese is easier at about 67s. 6d. per cwt. on the spot, and to arrive March-April shipment is quoted at 68s. c.i.f. Fatty grey *Carnauba* is 85s., and chalky 77s. 6d. per cwt.

The exports of vegetable wax from Japan during November amounted to 2,076 piculs, valued at 91,803 yen. During the eleven months ended November 30 they were as follows:—

		1920	1921	1922
Piculs	.. ..	6,664	24,501	45,641
Yen ..	.. ..	325,855	874,525	1,820,968

Seeds, Spices, etc.

ANISE.—Russian is offering at the cheaper price of 67s. per cwt., and Spanish is maintained at 90s., which is too high to permit of business. The "Baltriger," from Latvian ports, has brought 1,120 bags.

CANARY SEED is firm. Mazagan has been sold at 19s. per cwt. Larache is 17s. 3d. and Safi 18s. per cwt.

CELERY SEED.—The higher price of 110s. per cwt. c.i.f. is quoted for French, it being stated that the United States has bought largely at the source.

CHILLIES are quiet: Mombasa offer from about 90s. to 115s. for common to good. Sierra Leone at 130s., and Japanese at 165s. per cwt. Fair Bombay capsicums can be had at 45s., and inferior at 37s. 6d. per cwt.

CLOVES are lower, fair Zanzibar offering at 1s. per lb. on the spot. Sales to arrive include January-March shipment at 11½d. to 11¾d. to 10½d., and March-May at 11½d. to 11¾d. to 10½d. per lb. c.i.f. According to the wharf statistics, the landings of cloves in London for the week amounted to 5 and the deliveries to 315, leaving a stock of 1,256, against 13,887 in 1922.

COCONUT (DESICCATED) is again dearer, halves having been sold at from 40s. 6d. to 43s. per cwt. To arrive, March-April shipment has been sold at 41s. 6d. to 41s. 9d., and April-May at 40s. 9d. to 41s. 3d. c.i.f.

CUMIN SEED is scarce on the spot at 145s. for Morocco, and to arrive 100s. c.i.f. is quoted.

DILL SEED is offering cheaply at 19s. per cwt. c.i.f. for East Indian; spot price is 21s. 6d. to 22s. 6d.

FENNEL SEED.—Lower prices are quoted to come forward from India; on the spot from 70s. to 80s. per cwt. is quoted as to quality.

PEPPER.—Fair black Singapore is quiet but steady on the spot at 4¾d. per lb., sellers of March-May shipment quoting 4½d. c.i.f. Lampong is 4½d. spot. White Muntok is also quiet at 6½d. per lb. on the spot, and for March-May shipment, sellers quote 6¾d. c.i.f.; the value of white Singapore on the spot is 6¼d. per lb.

PIMENTO is quiet at 2¼d. per lb. on the spot.

Essential Oils

The general demand might be fitly described as "dead slow," and the smallness of spot trade lends no encouragement to import; this sooner or later will react on buyers requiring immediate delivery of goods. Citronella oil, owing to reported labour troubles in Ceylon, may cause the spot values to rise; we understand no large stocks are held. Cassia also may be dearer. Lemon may be worth attention. Clove should soon come cheaper, the spice being in an artificial position. Orange (sweet): Any seasonable demand is almost bound to advance prices.

ANISE (STAR).—"Red Ship" shows a little more doing, and ten cases have been sold on the spot at 2s. and 50 cases forward at 1s. 9½d. per lb. c.i.f.

BERGAMOT.—For 37 to 38 l.a. a little has changed hands on the spot at 12s., while the forward position seems firmer at 12s. 9d. to 13s. c.i.f.

CARAWAY.—Redistilled twice rectified Dutch can be had at 35s. 6d. per lb.; there is a fair inquiry.

CASSIA.—For 80 to 85 c.a. further sales made at 8s. 3d. per lb. spot; forward quotations are difficult to obtain. It is said that the source has nothing to offer, the nominal price of 8s. c.i.f. being mentioned.

CINNAMON.—Ceylon leaf has not maintained the reported improvement; spot is quoted 4½d. and 3½d. c.i.f.

CITRONELLA.—Owing to reported labour troubles in Ceylon the market has "firmed up." Spot is quoted at 3s. 3d. for Ceylon, and the c.i.f. price comes at 3s. 1d. Java can be had at about 3s. 8d. on the spot, but forward price comes much higher at 4s. to 4s. 1½d. c.i.f.

CLOVE.—The price of the spice being reduced 10 per cent., the oil is easier. English distilled is quoted at 7s. 3d., and for forward delivery no doubt the price would be shaded.

CORIANDER is in fair demand at about 85s. per lb.

CUMIN continues very scarce owing to short supplies of seed; 42s. per lb. is quoted.

EUCALYPTUS.—The demand is exceptionally good, the variability of the weather causing a steady retail sale; prices are inclined to harden; quotations range from 1s. 5½d. to 1s. 7½d. according to colour and cineol content.

GERANIUM.—The firmness of the market is still maintained; in one circular bids are asked for to be cabled out: one parcel of very poor quality is being offered at shillings below ruling prices.

JUNIPER BERRY is in fair demand at from 5s. to 5s. 3d. per lb.

LAVENDER.—In one quarter prices of French have advanced about 1s. 6d. per lb. to 13s. for 38 to 40 per cent. esters.

LEMON.—Profit taking in one direction has a little unsettled the spot market; the price mentioned is 2s. 8d. to 2s. 9d., but most of the best brands are firm at 2s. 10d. to 3s. spot, and 2s. 11d. to 3s. 1d. c.i.f.

MINT.—Higher quotations are cabled from Japan for dementholised; one offer mentioned 5s. 11d. c.i.f., but the spot price remains at 6s. 6d. per lb., which would be shaded 1½d. for 5 to 10 case lots.

ORANGE.—Sicilian sweet is unchanged as last week, but West Indian is higher at 8s. 9d. to 9s. spot and 8s. 6d. to 8s. 9d. c.i.f. Important sales of West Indian to New York are responsible for the rise.

PATCHOULI is steady at from 29s. to 30s. per lb. on the spot.

PEPPERMINT.—American continues very quiet on the spot at from 13s. to 13s. 6d. per lb. as to brand. Our N.Y. cable intimates a decline to \$2.75 (=11s. 8d. f.o.b.). The consumptive demand of American so far this year appears to be less than normal, or probably buyers bought more heavily than usual during last autumn and still hold stocks. Recent arrivals of H.G.H. have eased the spot price to 20s. 6d. to 21s.

SANDALWOOD is firmer; Mysore Government oil is offered at 27s. 6d. per lb. in five-case lots with the usual protection clause on contracts.

SPIKE LAVENDER.—Spanish of good quality is offered from 2s. 10d. to 3s. per lb.

Pharmaceutical Chemicals, etc.

The tone of the spot market is dominated by the position in Germany. There is still no sign of any supplies coming through from the territories occupied by the Franco-Belgian authorities, and, consequently, spot rates are advancing as supplies run short. Prices all through are fully maintained, and quite a number of important advances are recorded, due to the stoppage of imports. Business, however, has been decidedly slow in all directions. So long as the Franco-Belgian prohibition on trade—for that is really what the position amounts to—continues, spot rates are likely to remain firm, with a tendency to advance.

ACETANILIDE stands very firm at last week's rates of 1s. 5½d. to 1s. 6d. per lb.

AMIDOPYRIN seems to be going firmer on spot, and most spot holders are now asking 13s. to 13s. 6d. per lb., but there is little business about.

ASPIRIN.—Following on last week's higher prices for spot goods, the market is now firm at 3s. to 3s. 3d. per lb., and it would not be surprising to see still higher rates.

BARBITONE is now quoted on spot at 14s. to 14s. 6d. per lb., with the tone much steadier despite the lack of demand.

BENZOIC ACID.—B.P. has a firmer feeling on spot, and nothing is now offered below 2s. 2d. to 2s. 3d. per lb.

BROMIDES.—There is very little comment to add to our reports of the last few weeks, the position being unchanged. Spot goods are still plentiful with business small. Ammonium, 8d. to 9d. per lb.; potassium, crystals and granular, 6½d. to 7½d. per lb.; sodium, crystals and granular, 6½d. to 7½d. per lb.

CALCIUM LACTATE is steady on a slow market as quoted at about 1s. 10d. to 2s. per lb.

CHLORAL HYDRATE.—Spot duty-paid is steady as offered in the region of 4s. to 4s. 1d. per lb., and a slight advance is likely.

CITRIC ACID.—B.P. crystals are in fair demand for forward positions as offered at about 1s. 7d. per lb. for foreign. Spot business is slow at 1s. 7½d. to 1s. 8½d. per lb.

COUMARIN.—Sales have been made at from 12s. 6d. to 12s. 9d. per lb., but higher prices are now asked.

CREOSOTE.—B.P. is fully maintained on a dull market at 2s. 6d. per lb.

CREOSOTE CARBONATE is unchanged on the week at about 10s. to 10s. 3d. per lb.

GUAIACOL CARBONATE remains almost stagnant with the quoted rate at 8s. to 8s. 3d. per lb.

HELIOTROPINE is dearer, with limited stocks on the spot at from 6s. to 7s. per lb.

HEXAMINE stands very firm on spot at from 4s. to 4s. 3d. per lb., and the position on the Continent points to still higher prices to come.

HYDROQUINONE is meeting with little business, but the spot prices are steady at 3s. 6d. to 3s. 9d. per lb.

MERCURIALS.—Makers' list prices are: bichloride, 4s. 4d.; subchloride, 4s. 9d.; nitrate oxide, 5s. 7d.; oxide flav., 4s. 11d.; precip. alb., 5s. 2d.; sulph. alb., 3s. 5d.; sulph. nig., 3s. 11d. per lb.

METHYL SALICYLATE has experienced a further sharp advance, and the spot price is now firm at 2s. 6d. per lb., and may go still higher. Supplies from Germany are cut off.

METHYL SULPHONAL is unchanged on a dull market at 13s. per lb.

MILK SUGAR.—The "Kent" has brought 240 cases from Dunedin, N.Z., the bulk of which has been sold to arrive. The average spot price is about 95s. per cwt. for B.P. powder, and slightly more for small lots.

MUSK XYLOL is offered at from 8s. 6d. to 9s. 6d. per lb.

PARA-FORMALDEHYDE holds firmly at 3s. 6d. to 4s. per lb., although the demand on spot is small at present.

PARALDEHYDE is offering on spot round about 1s. 6d. per lb., but much firmer prices come from Germany, and the price is expected to advance to fully 1s. 6d. The arrival from Canada last week is said to be crude, and will be converted into B.P. quality. It is, of course, free of the 33½ per cent. import duty, and if re-exported to the British Colonies would be entered at preferential duty rates.

PHENACETIN seems to be firming up from 5s. 3d. to 5s. 6d. per lb. on spot. Business is not good, but supplies from Germany have been stopped.

PHENAZONE is well maintained at the quoted rate of 7s. per lb., and with activity the market would probably advance.

PHENOLPHTHALEIN is offering at 4s. 9d. per lb. and upwards, but the market is not steady, and remains rather quiet.

POTASSIUM PERMANGANATE, B.P.—Our remarks of last week have materialised, and there is a much firmer tone, with some spot holders asking 10d. to 10½d. per lb. Supplies on spot are short, and no further imports can be expected from Germany yet awhile.

RESORCIN remains at the level figure of 5s. per lb. n quotation.

SALICYLIC ACID.—Spot rates are firmer again this week, and the general quotation is now 2s. to 2s. 2d. per lb., and holders are in no hurry to sell. German supplies are cut off.

SALOL is fully maintained at last week's price of 2s. 6d. per lb., with one holder asking 2s. 9d. per lb.

SANTONIN.—Keen competition prevails, owing to the rising demand over a lengthy period, and the tendency is for lower prices; small lots can be had at about £82 per kilo.

SODIUM BENZOATE has advanced to 2s. 2d. per lb. on a firm spot market, and may be dearer by next week.

SODIUM SALICYLATE.—To-day's spot quotation of 2s. 6d. per lb. for crystals and powder shows a further advance, and there is every indication that this movement has not yet finished. Supplies from Germany are interfered with; even if they were not, their offers are at very high rates.

STRYCHNINE.—Makers' list prices are: acetate, 3s. 10d.; arseniate, 3s. 8d.; bisulphate, 3s. 2d.; citrate, 3s. 10d.; iodid., 5s.; hydrobromide, 4s.; hydrochloride, 5s. 7d.; hyposulphite, 5s. 7d.; nitrate, 3s. 7d.; phosphate, 4s. 1d.; sulphate, 3s. 4d.; and valerianate, 6s. per oz. net.

SULPHONAL is a shade firmer on spot at 12s. 9d., although there is little demand.

TANNIC ACID.—Leviss is now firm at 3s. 6d. per lb., and a slight advance is not unlikely.

TERPENE HYDRATE is very steady but in small demand only as quoted at 1s. 9d. per lb.

Industrial Chemicals, etc.

London, March 14.

THIS market continues rather slow as regards demand for home trade, but a very steady tone is maintained. This, of course, is entirely due to the total stoppage of supplies from Germany. Many of the products usually imported from that source are already on the up-grade with supplies limited on spot. Beyond the impossibility of importing from the occupied areas in Germany and its effect on the spot market there is little to comment upon.

ACETIC ACID.—The spot position has advanced sharply during the week and the limited stocks on hand are firmly held at—80 per cent. pure, £48; 80 per cent. technical, £47; 98 per cent. glacial, £70 per ton, in casks and demijohns, ex wharf, London. No further supplies from Germany can be looked for yet awhile.

ACETONE is a shade easier this week, with small supplies offering at about £125 per ton for British Government specification.

ARSENIC.—The position is much the same as it was. There is very little to be got from Cornish producers, who appear to be well sold up, and are holding for full terms, but the home demand is slow, consumers being reluctant to pay current rates due to the talk of concessions being made eventually. Dealers quote small lots at about £71 to £72 per ton. A fair number of parcels of Japanese arsenic have turned up lately, but these are apparently already sold.

BARIUM CHLORIDE is still in little request—offers are maintained at the recent level of £18 per ton for 98/100 per cent.

BLEACHING POWDER has not been much inquired for—35 to 37 per cent. chlorine is quoted at about £11 per ton.

COPPER-SULPHATE.—The tendency has been towards firmness, and although it is said that orders could still be placed at £26 10s. per ton f.o.b. for casks in one or two quarters, a more general quotation seems £27. The foreign demand has been moderately active, and the export returns for last month make an exceptionally good showing, the total being 8,575 tons, against 3,942 tons for February last year, the aggregate for the two months being 11,686 tons, compared with 9,455 tons for the corresponding period last year. Certain reports recently stated that home makers' terms had been kept down to some extent by Italian competition on the Continent.

CREAM OF TARTAR.—B.P. is quoted on spot with the market firm at 90s. to 92s. 6d. per cwt., according to quantity. Supplies from Germany are interfered with. A fair demand has been felt.

EPSOM SALT is steady, but slow of sale, as quoted on spot at £5 10s. per ton for commercial quality in bags.

FORMALDEHYDE is steady on spot with supplies not excessive; offers ex wharf, London, are at about £87 10s. per ton.

GLAUBER'S SALT is steady at £3 15s. to £4 per ton, in bags, but there is little demand for the spot parcels floating about.

LEAD ACETATE is firm, and prices are still on the up-grade; brown, about £36; white crystals, about £39 per ton. Supplies from Germany are held up.

OXALIC ACID is still in slow demand and the price is now down to 6½d. per lb.

POTASH CAUSTIC stands very firm at £32 per ton for spot 88 to 92 per cent. Further imports from the Continent are doubtful, and spot prices seem likely to go still higher.

POTASSIUM CARBONATE is in fair supply on spot, but prices are firmly maintained on account of stoppage of German shipments; 90 to 92 per cent., £26 10s.; 96 to 98 per cent., fully £31 per ton. There has been a fair inquiry this week.

POTASSIUM CHLORATE is steady as quoted at 3d. per lb., but business has been mentioned at a slightly cheaper rate.

POTASSIUM PERMANGANATE continues to advance on spot where supplies are not equal to the demand. Commercial quality is now at about 8½d. per lb.

POTASSIUM PRUSSIAN has recovered to its former rate of 1s. 5½d. per lb., and the market is now quite steady, with business improving.

SAL AMMONIAC is "firming up" after the recent weakening, and further imports from Germany are not possible. Spot, dog-tooth crystals, 49s. to 50s.; medium, 44s.; fine white crystals, 29s. per cwt.

SALTCAKE continues to be well inquired for for export but there is very little available. Prices are firm at between £4 10s. to £5 for home trade, and £5 to £5 10s. for export.

SODA CAUSTIC is the source of very little business as far as dealers are concerned; their prices are unchanged at—70 to 72 per cent., £19 10s.; 76 to 77 per cent., £21 10s. per ton, ex wharf, shipping port. British makers quote to domestic consumers on contract at—70 to 72 per cent., £20; 76 to 77 per cent., £21 10s. per ton, in drums carriage paid. Their prices for export vary according to destination.

SODIUM BICARBONATE is steady from British makers at £10 10s. per ton, in bags, carriage paid. Merchants are temporarily out of the market on account of the German position.

SODIUM BICHROMATE from the British maker is steady at 4½d. per lb. for home trade only—their prices for export are slightly more.

SODIUM CHLORATE remains dull, and the market is easy, as quoted, at 2½d. per lb., with a likelihood of slightly cheaper rates coming along.

SODIUM HYPOSULPHITE.—Pea crystals on spot are "firming up" again this week, and most holders are now looking for £16 to £16 10s. per ton. Commercial is at £10 per ton, in casts. No supplies are coming through from Germany. Other Continental makes are dearer for shipment.

SODIUM PRUSSIAN is cheaper, with the market dull. Spot offers are at 9d. per lb.

SODIUM SULPHIDE is steady, but slow in demand—60 to 62 per cent. solid, £15; broken, £16. 60 to 65 per cent. concentrated, £15 per ton.

COAL TAR PRODUCTS, ETC.—Carbolic acid crystals are at famine prices, and pitch has once more advanced. Naphthalene is dearer, and still on the up-grade. Hexamethylene is dearer on the week. Other products are unchanged. ANILINE OIL AND SALT remain quoted at 11d. per lb., packages free, with only small inquiry about. BETANAPHTHOL has been more inquired for, and the price is steady at about 1s. 4½d. per lb. PITCH in London is now quoted at 187s. 6d. per ton, but it is

doubtful if there is much to be obtained even at that price. There is still plenty of inquiry about. Pure METHYL ALCOHOL on spot is firm at £110 per ton, ex wharf, London, with shipment prices strong. CARBOLIC ACID crystals are firm on spot at 1s. 8d. per lb.; inquiry is good, but there are practically no supplies to offer. CRESYLIC ACID is steady on a quiet market at 2s. 3d. per gallon. PYRIDINE is firm on spot at 12s. per gallon, with little doing. HEXAMETHYLENE is dearer again this week, with the spot offer at 3s. 9d. to 4s. per gallon. DISINFECTANTS are quoted at 3s. 9d. per gallon, barrels free on a dull market. NAPHTHALENE is now at the higher price of £19 per ton, and may go still dearer; crude, £6 10s. to £11 5s.; crystals, £16; powder, £16; balls, £24; candles, £28; tablets, £28 per ton, packages free.

Fixed Oils, etc.

THE healthy tone recorded during the past few weeks is maintained and business continues quite satisfactory. Generally, the markets are very steady. Acid oils, palm and castor oils are firm. Linseed oil closes quite steady, and turpentine continues firm on spot with late forward business passing at much cheaper rates. ACID OILS continue to advance and at the close is still very firm with demand good: Coconut, 38s.; palm-kernel, 38s.; groundnut, 35s. 6d. CASTOR OIL.—Last week's higher rates are fully maintained on a healthy market: Pharmaceutical, 55s.; first pressings, 50s.; second pressings, 46s. spot to June; less than one-ton lots 20s. per ton extra. COCONUT OIL.—Quoted rates show no change, with the market steady: Deodorised, 47s. 6d.; Ceylon, 43s. 6d.; Cochín, 47s. COTTONSEED OIL.—Current rates are about level on the week, and the market is quite steady: Deodorised, 47s. 6d.; common edible, 45s.; soapmaking, 43s.; crude, 40s. GROUNDNUT OIL is steady, with current rates unchanged: Deodorised, 55s.; crude Oriental, for shipment, 45s. 6d., c.i.f. LINSEED OIL.—Early on the prices of naked raw on spot and forward positions dropped back a little, but the market has since taken on a firmer tone, with rates nearly recovered to last week's level: On spot, 41s.; March, 39s.; April, 38s. 3d.; May-August, 37s. 3d.; September-December, 36s. 3d. Hull, on spot, 39s.; March, 38s. 9d.; April, 38s. 3d.; May-August, 37s. 6d.; September-December, 36s. 6d. The trend of prices is irregular and likely to continue so for some time, while the market in near at hand supplies is to a degree influenced by a shortage of oil in the United States, which is attributed to the difficulty experienced by American crushers in getting adequate deliveries of domestic seed. The seed market has kept fairly steady, while the position of River Plate shippers has been favoured by the heavier shipments made both to the European and American ports. Our imports of linseed oil have been quietly increasing, the total for two months being 1,103 tons, against 106 tons same period in 1922. The exports for last month were 1,880 tons, making a total of 4,686 tons for the two months, against 12,144 tons in the same period in 1922. PALM-KERNEL OIL.—Deodorised at 45s., and crude, c.i.f. for shipment at 40s., are unchanged. PALM OIL continues to hold firm at the recently sharply advanced rates, and a fair volume of business has been done, with supplies still limited: Lagos, 37s.; softs, 37s.; hards are scarce and are very firm at 39s. 6d. RAPE OIL is steady and unchanged: Refined, 49s.; crude Oriental, 45s. SOYA BEAN OIL.—A quieter week is reported, but prices are fairly well maintained: Deodorised, 45s.; crude Oriental, for shipment, 39s. c.i.f. TURPENTINE (American).—Rates have been steady during the past week and business fairly satisfactory. The tone at the close was showing some firmness, with prices slightly appreciated. On spot, 109s. 9d.; March-April, 110s. Business has been done at 81s. 6d. July-December. Total London stock is 13,200 barrels. Deliveries of late were comparatively large, while the imports accounted for in the past month showed a considerable falling off against January. The total for the two months amounts to 2,396 tons, against 1,934 tons for same period last year. The very low terms which have been tentatively fixed on distant contracts is a curious feature, and it is perhaps as well not to attach too great significance to this.

German Chemical and Drug Markets

THERE has been practically no business transacted in chemicals and drugs, as buyers are still holding back, limiting their purchases to cover actual requirements. Export orders have also declined with the appreciation of the mark, and now it is recognised that orders are placed in Germany by foreigners only when the rate of exchange is very much in favour of the buyer. Quotations for the home market are more or less nominal, but it is significant that manufacturers are asking in many cases considerably higher prices than those quoted by dealers. In fact, prices in Germany for a variety of goods to-day approximate those in the world market, and in some instances are even higher, a fact which is causing some apprehension in business circles, since any equalisation of prices would prove a serious handicap to Germany's export trade, so largely dependent on offers at "competitive prices." Indeed, several members of the Reichstag have presented a motion to the effect that, in order to combat unemployment, the Government should remove all restrictions on the exportation of goods, the prices of which have reached the world market's level, and which do not find a ready sale in Germany. In the meantime the fiscal measures introduced by the Franco-Belgian authorities are seriously affecting trade between Great Britain and the occupied territory, and also with unoccupied Germany by way of the western frontier. It is interesting to note that at the recent meeting in Brussels of the French and Belgian Premiers the protests voiced by British traders were apparently taken into serious consideration, since it is reported that in future British commercial interests are to be safeguarded by the introduction of certain changes in the system of granting export and import licenses. According to a recent ministerial statement, the following regulations are at present in force: The 10 per cent. *ad valorem* duty on goods consigned to places within the occupied territory by way of the western frontier has been substituted for the German Customs tariff. Goods admitted free of duty under the German tariff are still exempt from duty. Goods consigned from countries other than Germany to the occupied territory through unoccupied Germany are exempt from import duty on their entry into the occupied territory on production of a certificate of origin and a receipt for payment of customs duty issued by the German authorities. The list of goods which came in free from import duty remains in operation. The list of goods which under the previous régime were exempt from export license requirements remains in force. Other goods may not be exported from occupied territory to countries other than Germany except under license. Goods consigned from the occupied territory to a country other than Germany by way of unoccupied Germany require an export license, but are exempt from export duty in the occupied territory except in certain cases. The export of goods from both the old and the new occupied territory to unoccupied Germany is forbidden; and only in exceptional cases can permits be obtained. Goods consigned from a country other than Germany, through occupied territory, to a country other than Germany enjoy the usual transit facilities and are exempt from duty both on entry into and departure from the occupied territory. Goods consigned from a country other than Germany, through occupied territory, either by way of the western frontier or the Rhine to unoccupied Germany must pay duty at the first office in the occupied territory. On the other hand, the German Government is extremely active in reminding its nationals that compliance in any form whatever with the measures introduced by the French and Belgian authorities is strictly prohibited, and, according to the provisions of a bill against espionage, being rushed through the Reichstag, renders the offender liable to be prosecuted for treason. German firms are forbidden to conclude sales with "neutral" firms on the basis of delivery at the works, unless the foreign buyer obtains through the diplomatic channels an assurance from his own Government that the importation, or exportation, of the goods in question will take place solely in accordance with the existing German regulations. In addition, the imperial commissary for import and export licenses has now decreed that firms making application for an import or export license are forbidden to apply to the Allied authorities for a permit. In future, the import and export licenses issued to firms in the occupied territory will bear the following imprint: "Permission is granted under the condition that concurrently no request for permission for the same articles will be made to anybody not authorised by the Government of the Reich." It is not necessary to dwell on the utter impossibility of trading normally with or through the occupied part of Germany in these circumstances, and it is scarcely to be wondered at that German papers report that smuggling on a vast scale has reappeared in the west.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Dispensing Errors

SIR.—The following sentence appears in your issue for March 10 under your Manchester notes: "The Salford public analyst thinks that within the margin of 10 per cent. it is not reasonable to expect scientific accuracy in dispensing." In order to prevent any misunderstanding, I should like to point out that this simply means that I do not consider a patient is prejudiced seriously where the error is less than 10 per cent. I must guard myself carefully against any suggestion that this "10 per cent. allowance" is an encouragement by me of inaccurate dispensing. It may be, of course, easily possible even under ordinary dispensing conditions to dispense medicines within an accuracy, say, of 1 or 2 per cent., but I have to consider these points not from the point of view of the training of dispensers, but from the point of view of prejudice to the purchaser. This allowance is made with the object of meeting any inaccuracies which may creep in owing to the use of stock solutions or the varying capacities of containers, etc.; it is in no sense a legal agreement, but is merely a private arrangement under which legal proceedings are not taken against pharmacists unless the error discovered is at least 10 per cent.

I am, etc.,

G. D. ELSDON,

Borough Analyst.

Salford.

SIR.—My letter is not quite correctly represented by "Xrayser II." I do not know of any actual "rule of thumb" dispensing, but think it is a fair inference, when reading of the odd figures occasionally presented in the legal reports. Briefly, one may say if you put in the correct weight or measure you may clear your mind of any anxiety. But if, instead of *zij.*, say, a dispenser in a hurry makes a guess at it or uses a $\frac{1}{2}$ -oz. weight (*avoirdupois*), then of course things may happen.

Yours, etc.,

NARETEV (13/3).

Distilled Water v. Tap Water

SIR.—It is good to read that Messrs. Boots scored a distinct hit and received costs at the Kensington Petty Sessions (*C. & D.*, March 10, p. 326). Chemists have from the first pointed out that the use of tap water was bad pharmacy, and now their contention has been proved in court. Practically every sample of company water shows some degree of alkalinity, and this varies greatly in different localities. One good thing is that, what with the reluctance of the Ministry to provide such an expensive preparation as *aq. dest.*, and the anxiety of the inspectors to take samples, they will between them get into such a delightful muddle that the chemist may have a rest. Further episodes will arise when someone able to fight the case is summoned for *mist. bismuthi* (the formulary mixture having no suspending agent), or that truly awful concoction *mist. acid. acetylsal.*, in which all the little acid gleefully sticks to the sides of the bottle, leaving the "aqua tap." almost pure and undefiled.

Yours, etc.,

DESTILLATA (12/3).

Pharmacy in the Army

SIR.—I have read the correspondence between the Pharmaceutical Society and the War Office on the subject of an efficient Army pharmaceutical service, and am not in the least surprised at the result. The Society has made every effort to bring the many conferences to a

satisfactory conclusion, and they have done this in a most loyal manner. There is no doubt that things would have been brought to a head more rapidly had they adopted the alternative course—namely, publicity. The many letters would have shown the most utter inefficiency and almost confusion that prevailed through the insertion of square pegs in the round pharmaceutical holes of the medical services during the war. The excuses made by the Army Council of the financial conditions now prevailing will not bear close inspection. This argument is supported by the statement that they have employed a *non-commissioned* pharmacist in their school at Crookham. They do not tell us, however, how many *officers* they have in charge of medical store depôts who are not pharmacists and who have no real knowledge of the raw materials they are handling. The recommendations put forward by the Society's representatives were moderate, and also consistent with the times of stringent economy. That they should have been ignored by the War Office is indeed regrettable. We cannot allow the matter to rest where it is, and further conferences will probably lead to nothing. There is, however, another course open to us—let us circulate the indisputable evidence among our members of Parliament, who will soon administer the necessary dose of oleo-resin of ginger through the House of Commons.

I am, etc.,

W. A. POUCHER,

Late Captain, R.A.M.C.

Cheltenham.

The R.P.U. Advertisement

SIR.—I was more than delighted when I saw that the Retail Pharmacists' Union was determined to fight erroneous statements on "dispensing errors," and I hope that they will keep it up; for one reads a number of errors respecting pharmacy and poison law in the lay Press, even by coroners and those who administer the law—although there is some excuse for ignorance, as I personally look upon it as the weakest statute on the book. I am so sorry they flaunt the title "Retail Pharmacists' Union." To my mind, "retail pharmacist" is a misnomer; there is no such thing. The Pharmaceutical Society, which grants the title after examination by licence from the Privy Council, has nothing to do with the retail in any form or shape; and I look upon the retail as being just necessary to augment an income insufficient from one's legitimate calling, because we as individuals do not get our just rights from the Government of the country. The title "pharmacist" is a personal title, and demands no further qualification, adjectival or otherwise. You do not call a doctor a retail doctor because he takes his fee at the time, nor do you speak of a retail solicitor, barrister, or clergyman—who perchance receive fees at the time of service.

Yours, etc.,

ALBAN ATKIN, M.P.S.

West Hampstead.

SIR.—The advertisement lately displayed by the Retail Pharmacists' Union in the leading daily papers is well drawn up, and should give the general public a better insight into the training and responsibilities of pharmacists; but I consider that the last paragraph but one is a mistake, and should not have been included. It would allow the lay reader to infer that the hall-mark of a pharmacist is his fitness for "teaching dispensing in medical schools," instead of which the stress should have been laid on his legal right to sell and dispense poisons under the Pharmacy Act. It is a lame conclusion to a good explanation, besides contradicting our arguments against dispensing doctors; as pharmacists we have our own ideas about the adequacy of the training meted out to medical students, the results of which are too well known to us by daily examples in the prescriptions we handle. And, moreover, the paragraph in question is a tacit admission that medical men are as competent dispensers as qualified pharmacists are; if they dispense as accurately as they prescribe, Heaven help the patients!

Yours faithfully,

UNHAPPY PAR (12/3).

Legal Queries

D. O. M. (27/2).—INSTITUTION DISPENSING.—We take it that the prescriptions you refer to are case papers for records by the authorities; if this is so, your method of dealing with them is quite in order. Two points arise, which you may be doing, but do not mention: first, the doctor himself should initial orders for "dangerous" drugs, and, on the other hand, if the orders are for general use in the wards and not a particular patient, it is necessary for you to keep the order for two years.

W. N. A. (3/3).—SUPPLY OF "DANGEROUS" DRUGS TO DOCTORS.—The doctor should be required to give a written order, signed with his full name, also giving his qualifications and address. You should also comply with the Pharmacy Act by getting his signature in the poisons book. Make an entry in your sales book, with a cross reference to the poisons book. The amending Bill which is before Parliament will alter this procedure, but at present the above procedure holds good. No wholesale licence is required by an "authorised" person, such as a chemist.

Loan (10/3) lent a sum of money to a friend more than seven years ago, receiving in exchange an I.O.U. Since then the friend has neither paid any interest nor given any acknowledgment of his indebtedness. Has "Loan" any legal claim to the return of the money? [An ordinary debt becomes statute-barred and irrecoverable by legal proceedings after a lapse of six years, and, in the circumstances, "Loan" has forfeited his right to bring an action for the recovery of the amount which he lent to his friend, although he is still entitled to recoup himself by any other legal means.]

E. K. (10/3) says he has invested in War Loan enough to bring him in £50 a year, and his whole income is less than £100. He is told that income tax is deducted from the War Loan interest before it is paid to him, and he asks what steps he can take to recover tax deducted in this way. [If the tax is in fact deducted before the War Loan interest is paid to "E. K.," he can claim repayment of it, and, for this purpose, he ought to get a repayment claim form at the office of the local Inspector of Taxes, fill it up with particulars of his whole income, and return it to the Inspector with the certificates of tax having been deducted attached.]

H. M. D. (10/3).—The prescription you forward is well outside the Dangerous Drugs Act and the Regulations made under that Act. The prescription should be copied in the prescription book in the usual way, and, of course, the prescription returned to your customer, to whom it belongs. Your method of dealing with local transactions with medical men is insufficient without a wholesaler's license under the present regulations, although the amending Bill which is before Parliament would meet your case if it passes in its present form. Until then your best course is to enter the sale in the poisons book, and make a cross reference in the "Dangerous" Drugs register. You will require the doctor's signature in the poisons book.

H. E. (26/2).—SUPPLY OF "DANGEROUS" DRUGS.—You will have noticed the proposed amending regulations governing this case in *C. & D.*, January 20, pp. 93 and 94. Your customer comes within the term dispensing doctors, and must record in separate registers or separate parts of a register appropriated to each drug, the date, from whom bought, address, amount, the form. For supplies to patients: the date, name of patient, address, the person with whom any such drugs are left for administration at the home of a patient, amount, form, and ingredients of prescription dispensed. Should a day book be kept, the recorded particulars should be entered, giving the above information, and only a cross reference to the page of such book in the D.D. register. Records of stocks prior to September 1, 1921, would not appear in the register of drugs received, but such stocks, if any are left, must be shown to an inspector if required.

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

R. C. F. (12/3).—There is no practicable way of directly intensifying an old faded photograph. The usual method is to copy it and to intensify the negative, if too thin.

E. A. O. (2/3).—PRESCRIPTION PRICE.—Your prescription is priced as follows by the *C. & D.* Costing System:—

Pilocarpin. nit.	...	...	grs. ij.	6.0
Aq. dest.	...	...	ad 5 ss.	1.0
Container	...	...		1.5
Dispensing oncost	...	...		8.0
Charge, 1s. 5d.				16.5d.

J. H. G. (20/2).—Sauce is thickened with starch, which is boiled in the sauce to form a thick mucilage. Any variety of starch may be used, but generally a cheap form of arrowroot or cornflour is employed.

W. J. F. (23/2).—LAWN SAND.—The following are the varieties of lawn sand: (1) Coarse sand, 1 part; potassium bisulphate, 3 parts. (2) Calcium and phosphate, 1 part; ammonium sulphate, 5 parts; coarse sand, 4 parts. (3) Coarse sand, 12 parts; salt, 8 parts; sulphuric acid, 1 part.

A. B. R. (23/2).—GROUND-GLASS VARNISH.—

Sandarac	90 gr.
Mastic	20 gr.
Ether (sp. gr. 0.720)	2 oz.

Dissolve and add:—

Benzol	¼ to 1½ oz.
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according to the nature of the matt surface required.

C. M. F. (7/3).—WEATHER-GLASS SOLUTION.—

Camphor	...	...	5ss.
Ammonium chloride	...	...	5ss.
Potassium nitrate	...	...	5ss.
Rectified spirit, 64 o.p.	...	...	5j.
Distilled water	...	...	5ij.

Weigh the spirit in the bottle and dissolve in it the camphor, then add the salts and the water (warm). Shake, and when dissolved filter. Long narrow tubes of glass are filled with this solution and hermetically sealed or corked. The tubes are then affixed to boards by means of wires in the same way as barometers are fixed.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," March 15, 1873.

The Irish Pharmacy Bill

A deputation, consisting of Messrs. Goodwin, Hayes, Hodgson, Holmes, and Wells, waited on the Apothecaries' Society on March 14. The following draft bill was proposed by the Apothecaries' Hall:—

"Pharmacy Bill (Ireland), to regulate the Practice of Pharmacy in Ireland, to initiate a Pharmaceutical Society, and to amend Act of 31 George III.

"1.—To enable the Apothecaries' Hall to grant licences to chemists to compound prescriptions.

"2.—After certain date, all chemists before commencing business to be examined.

"3.—Examiners for purpose of this Act: Governor and Six Members of the Apothecaries' Hall, with six examiners selected by the Pharmaceutical Society of Ireland.

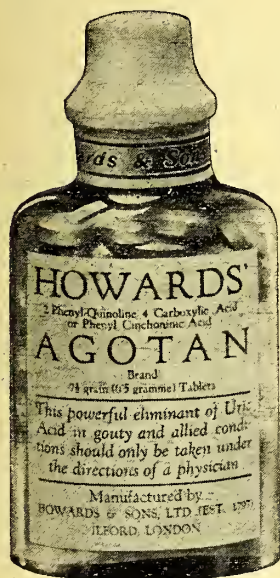
"4.—Subjects—Latin and English, Arithmetic, Botany, Materia Medica, Pharmaceutical and General Chemistry, Practical Pharmacy, and British Pharmacopoeia, not to include Theory and Practice of Medicine, Surgery, Midwifery, or any branch of Medicine or Surgery.

"5.—Registrar to be appointed.

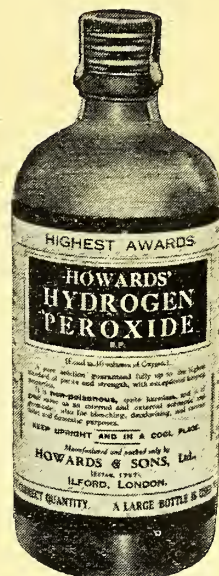
"6.—Fees."

The deputation was well received, and it is most likely that a bill somewhat like that of which the above is a draft will be agreed to. A nominal examination is to be suggested for chemists already in business.

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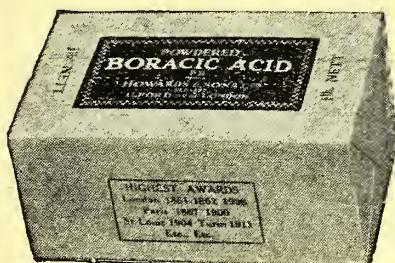


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We commend to the attention of the Retailer 1-oz., 2-oz., 4-oz., 8-oz., and 16-oz. packets or elegant tin-ended Barrel Cartons of Epsoms, Glauber's, Acid Boric, Borax, Sodii Phosph., etc., as well as $\frac{1}{4}$, $\frac{1}{2}$, and 1-lb. bottles Hydrogen Peroxide, which we have now begun to manufacture; Agotan, the well-known eliminator of Uric Acid, etc.

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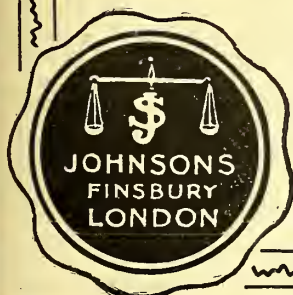
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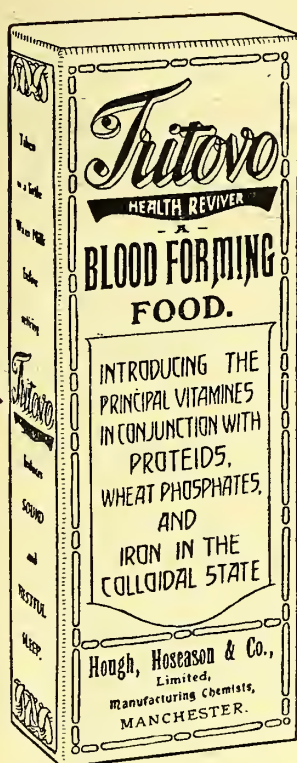
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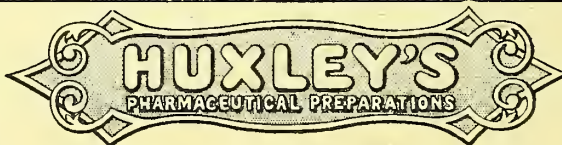


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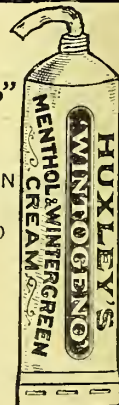
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MENTHOL
&
WINTERGREEN
CREAM
(THE ORIGINAL)

In boxes of
1-dozen



BLYTON, ASTLEY & CO.

Manufacturing Pharmacists

LOWER BROUGHTON, MANCHESTER

BUY FOR THE SEASON,
a Pharmaceutical article made by
Pharmacists for the Pharmacy.



MORNING SALT

(a palatable non-sugar preparation) as illustrated

PER 11/9 DOZ.

In cartons and handsome coloured wrappers

PER 12/3 DOZ.



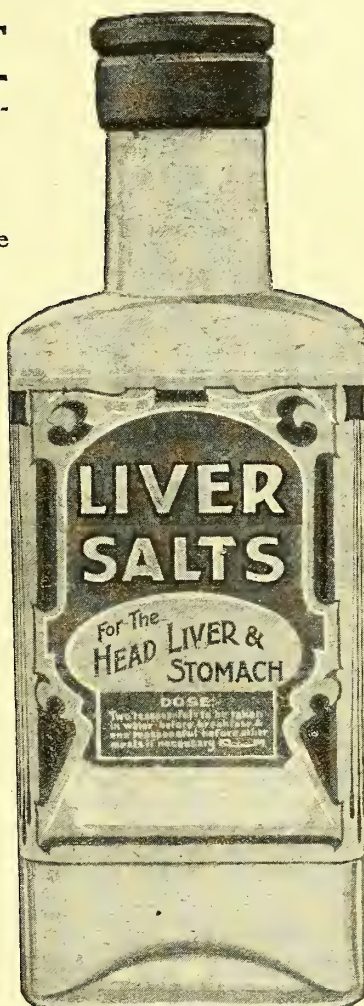
LIVER SALT

(as illustrated)

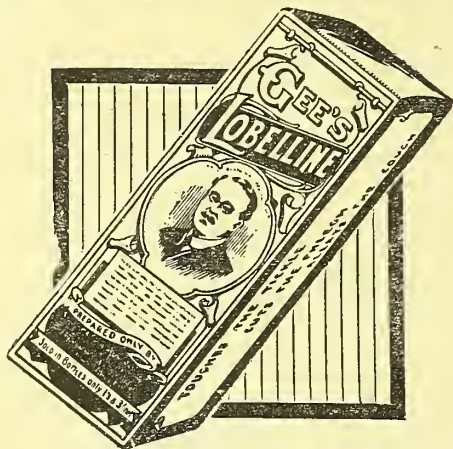
PER 11/- DOZ.



*Chemist's own name
and address printed
on orders for 3 dozen
and upwards.*



Eventually !



Eventually you will be selling Lobelline, and wherever Lobelline is introduced it sells rapidly, shows you a good profit, and builds up Goodwill for your business. We invite you to write for generous Trade terms and full particulars of this WELL ADVERTISED PROFITABLE LINE—

Why not now?

**GEE'S
LOBELLINE**
The Great Lung Preserver

Cures Coughs, Colds, Asthma,
Bronchitis, Influenza,
Whooping Cough, Croup, etc.

BOTTLES 1/3, 3/6, 5/6 (P.A.T.A.)
LOZENGES 1/3 per tin (P.A.T.A.)

Sole Proprietors :

SQUIRE & CO., LIMITED, BIRMINGHAM
Stirchley Laboratories, BIRMINGHAM.

Sulfluid

RAPID CURE. INSTANT RELIEF.
RINGWORM, SCABIES, IMPETIGO

SOVEREIGN CURE FOR
ECZEMA AND OTHER SKIN DISEASES.

The principal ingredient in this quick and certain cure for skin diseases is Sulphur in a liquid form hitherto unobtainable. Owing to its extraordinary power of penetration it reaches the root of the trouble and can be guaranteed to effect a cure of the most stubborn case of Ringworm within 14 days—Scabies and similar diseases in very few applications. It is guaranteed to be non-poisonous, non-corrosive and non-irritant to the most tender skin.

RETAIL PRICE 3/- : TRADE PRICE 27/- per doz.

Packed in half-dozens in attractive display cartons.

HOUSEHOLD OINTMENT.

Sulfluid Household Ointment is the same potent solution in ointment form and will be found invaluable in the treatment and rapid cure of minor skin troubles, such as cuts, grazes, burns, scalds, chaps, boils, pimples, and will impart a smoothness and freshness to tender skins in cold or bad weather.

RETAIL PRICE 1/9, 3/- : TRADE PRICE 15/9, 27/-.

Packed in dozens in attractive display cartons.

Sole Distributing Agents to the Wholesale and Retail:

W. EDWARDS & SONS,
1418 NILE STREET, CITY ROAD, N.1.

NURSE HARVEY'S MIXTURE

A safe, simple, and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessities from him. Moreover, the retailer has a profitable return on a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK

RAILOX

An effective, clean and handy
NIT AND LICE DESTROYER
No grease or liquid.

Does not show on the hair

3d. & 7½d. per packet.

3 doz. 6/-; 6 doz. 12/-; 1 grs. 23/6. 7½d. size 5/3 doz.
13 to the dozen for cash with order.

DISCOUNT—Orders of £1, 2½% ; £5, 5% ; £10 7½%.

Carriage Paid. Attractive Showcards Supplied.

MILNER'S CHEMICAL CO., LIVERPOOL.





SINGLETON'S EYE OINTMENT.

The oldest established remedy
in existence. Founded 1596
and manufactured on the
present premises for 240 years.

ON THE LIST OF THE P.A.T.A.
**REDUCED PRICE
TO THE TRADE.**

Retail Price - - 2/9 per pot.
Trade Price - - 25/- per doz.

Further particulars from:-

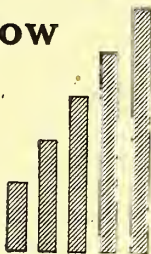
STEPHEN GREEN LTD.

210 LAMBETH ROAD,
LONDON, S.E.

Tel. No. 4088 CITY.

Watch the Sales Grow

It is Snowfire all day and every day
when people know you sell it. A
wonderful skin soother—nothing like
it for chapped hands, rough skin and
cracked lips. Far better to use and
more profitable to sell than any 1d.
or 2d. article, but doesn't affect sales
of expensive creams.



Snowfire

TABLET

Write for Terms to-day:
F. W. HAMPSHIRE & Co., Ltd.
Riverside Works, Derby.



Dr. Bengué's Ethyl Chloride for Local
and General Anaesthesia in Glass
and Metal tubes.

Large selection of tubes.

Anestile for Local Anaesthesia.
Narcotile for General Anaesthesia.
Methyl Chloride.

Ask for Special Terms and Showcards for
Dr. Bengué's Balsam.

Dr. BENGUÉ & CO., MANUFACTURING
CHEMISTS,
52 Charlotte St., LONDON, W. 1.

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Full Steam Ahead!

The powerful publicity campaign on
behalf of The Hygienic Research
Company's Products has commenced.
Immediate success has been registered. A great
widespread demand has arisen. Watch the
"Daily Mail" and "Daily Mirror."

The lines advertised are :

"Ruby Balm" "Ruby Balm Oils"
"Veterinary Ruby Balm"
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For full details of our special offer which gives
you 38½% profit on business we bring right up
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THE HYGIENIC RESEARCH CO., LTD.
100-106 Moorgate Station Chambers - LONDON, E.C. 2
Telephone: London Wall 670.



Factory: PRIORITY ROAD, DARTFORD.
Telephone: Dartford 87.

Clarke's Blood Mixture

Special Terms for Window Show

Any Distributor ordering One Gross 3/- size Blood Mixture—or its equivalent in value—is offered an extra half-dozen Blood Mixture for 14 days' Window Show.

DUMMIES AND SHOWCARDS ENCLOSED WITH EACH ORDER.

MINIMUM PRICE FACE VALUE

33 $\frac{1}{3}$ per cent. on cost to our Distributors.

FREE CASES

Carriage Paid on £100 orders.

Orders despatched in strict rotation.

The Lincoln & Midland Counties Drug Co. Ltd.
PARK STREET, LINCOLN.

BEECHAM'S PILLS

WHOLESALE PRICES.

Beecham's Pills:

1s. 3d. size	..	..	..	..	..	10s. 6d. per doz. net.
3s. 0d. „	..	..	..	..	..	26s. 6d. „ „
5s. 0d. new size, contains double the quantity of 3s. box,						50s. 0d. „ „

Beecham's Cough Pills:

1s. 3d. size	..	..	..	..	..	10s. 6d. per doz. net.
3s. 0d. „	..	..	..	..	..	26s. 6d. „ „

Minimum quantity £5 value.

Packages FREE,

Carriage PAID.

CASH WITH ORDER.

Cheques to be made payable to **THOMAS BEECHAM**, and crossed "Parr's Bank, Ltd., St. Helens."

One of the very best sellers in your business,
with a specially rapid sale, and well advertised.



1/3

WOODWARD'S "GRIPE WATER"

1/3 per Bottle

Under the protection of P.A.T.A.

Net Price : 1 gross delivered carriage
paid and in free case to your door, **£7.**

Your profit is 28½ per cent

W. WOODWARD(1920) Ltd., 79-87 Fortess Rd., London, N.W.5

IDOZAN

This new colloidal form of Iron is widely prescribed by members of the Medical Profession and gives astonishingly good and prompt results in the treatment of Anæmia.

Retail **5/-** per Bottle.

You may recommend it with confidence and sell it with profit.

Order through your Wholesaler.

Stocked by SANGERS—MAY
ROBERTS — EDWARDS —
RAIMES CLARK (Leith)—
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CHAS. ZIMMERMANN & CO. (Chem.), LTD. Ferrosan Dept.
9-10 ST. MARY-AT-HILL, LONDON, E.C.3.

DUTCH
Sugar
of Milk.
"THE BEST"

**HOLLANDSCHE
MELKSUIKERFABRIEK
Amsterdam.**

*A High-class Pharmaceutical Preparation
for sale by Pharmacists only*

WESTON'S 'STOP-COUGH'

MANUFACTURED BY QUALIFIED CHEMISTS
AND SOLD ONLY BY QUALIFIED CHEMISTS.
CAN BE RECOMMENDED WITH CONFIDENCE
:: AND CARRIES A GOOD PROFIT. ::

Send us a post-card for our Special Window Display Terms.

GRAFTON CHEMICAL CO., LIM'D.
59 GRAFTON STREET, MANCHESTER.

PHONE : CENTRAL 6914

OVIOL

The Cod Liver Oil (52%) and Egg Emulsion

P.A.T.A. Prices :

Retail per bottle, 3/-
Wholesale per dozen, 26/-

The following Wholesale Houses hold stocks :

Aberdeen	Wm. Davidson, Ltd.
Birmingham	Southall Bros. & Barclay, Ltd.
Edinburgh	Duncan, Flockhart & Co.
Exeter	Evans, Gadd & Co., Ltd.
Glasgow	W. R. Hatrick & Co.
Hull	Lofthouse & Saltmer, Ltd.
Leeds	Hirst, Brook & Hirst, Ltd.
Liverpool	Ayrton, Saunders & Co., Ltd.
London	Butler & Crispe
	W. Edwards & Sons
	May, Roberts & Co., Ltd.
	F. Newbery & Sons, Ltd.
Manchester	James Woolley, Sons & Co., Ltd.
Plymouth	May, Roberts & Co., Ltd.
York	Raines & Co.

The best nutrient available for children or adults.

The Vitamin content is computed as 125 times as rich as butter in the fat soluble Vitamin "A," and also includes the water soluble Vitamin "B," which is entirely lacking in butter or the usual cod liver oil emulsions.

OVIOL bears a reasonable protected margin of profit.

*The Bright Package Lends
Itself to Effective Display.*

MACLEANS, Ltd. Manufacturing Chemists, **6 Spring St., London, W.2**

Fecto

A CHLORINE DISINFECTANT

SELLING POINTS

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| EFFICIENT | Its germicidal power is 12 times that of phenol. |
| ECONOMICAL | The 1/3 size makes 8 gallons of strong disinfectant. |
| CLEANSING | It bleaches and makes cleaning easier. |

SPRING CLEANING WILL INCREASE THE OPPORTUNITIES
FOR INTRODUCING IT TO YOUR CUSTOMERS

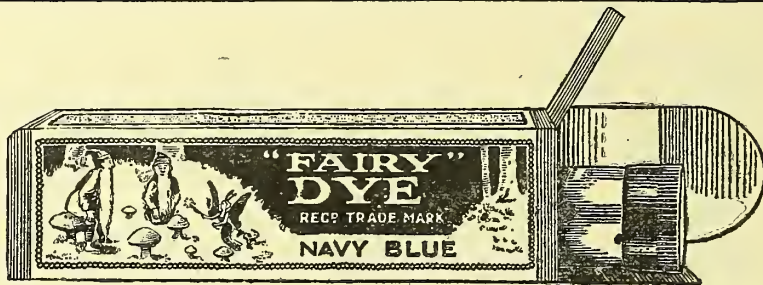
P.A.T.A.
8-oz. — 1/3
16-oz. — 2/3
10/2 & 18/-
net per dozen



A SAFE BUT POWERFUL GERMICIDE

SALES AIDS ON REQUEST
T.J.38.

PARKE, DAVIS & CO.,
50-54, BEAK STREET, LONDON, W.1



FAIRY DYES

Mean Greater Turnover for You—and Absolute Satisfaction for Your Customers.

THERE is no more attractive line on the market to-day—there is no better seller—and no article has made larger strides in popular favour.

FAIRY DYES

are now sold in glass tubes, encased in smart, clean-looking "safety-first" cartons. They are retailed at 2d. each, made in 25 popular shades and colours, and are extensively advertised in the right publications.

You can rely upon Fairy Dyes—for prompt delivery in any quantities—for fresh stocks—for quick, easy-to-handle, clean turnover, and as tried favourites your customers are always satisfied. See that you are supplied without delay.

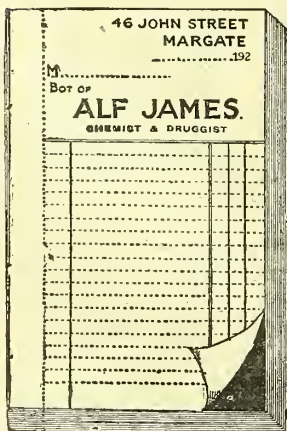
For Trade Terms and particulars write to

FAIRY DYES, LTD., 37-41 GLASSFORD ST.,
GLASGOW.
London Depot 292 UPPER STREET, ISLINGTON, N.1.

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what may happen by not keeping a duplicate copy of all your correspondence. It's so easy to do this with the 'Charterhouse' Duplicate Order or Memo Book which is made only with 100 printed tear-outs 6 by 4, and 100 plain duplicates 1st leaf, good white bank paper, printed any ordinary heading and perforated. 2nd leaf, white paper, plain and fast. Wired binding, stout Kraft flush paper covers; one sheet of carbon per book.

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Saves time, money and trouble. Each sheet is numbered so as to give an accurate record.

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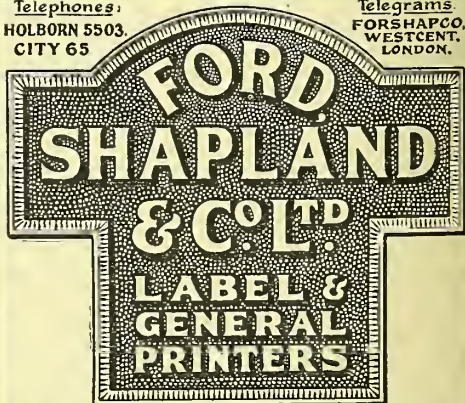
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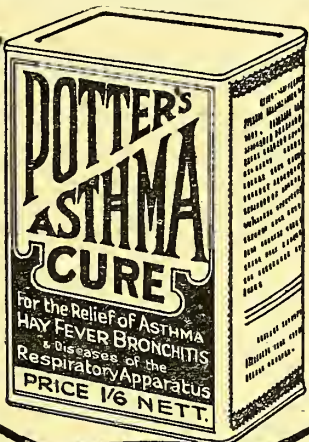


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ENVELOPES FOR SHAMPOO POWDERS,
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"Sol-Vo" Sanitary Paper
in Rolls & Packets.

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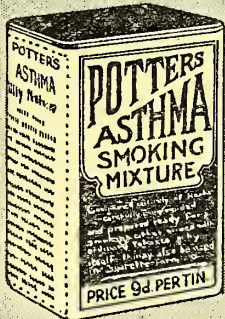
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(P.A.T.A. 1/6)

14/- DOZ
NET

POTTER'S Asthma Cure

ADVERTISED
EVERYWHERE

GIVES INSTANT
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9d. Tins (P.A.T.A. 9d.)
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1/6 Boxes (P.A.T.A. 1/6)
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1/3 Boxes (P.A.T.A. 1/3 net) 10/- doz.
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AND AT
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Petroleum Jelly

White, Yellow, Amber,
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Pharmaceutical and
Veterinary purposes

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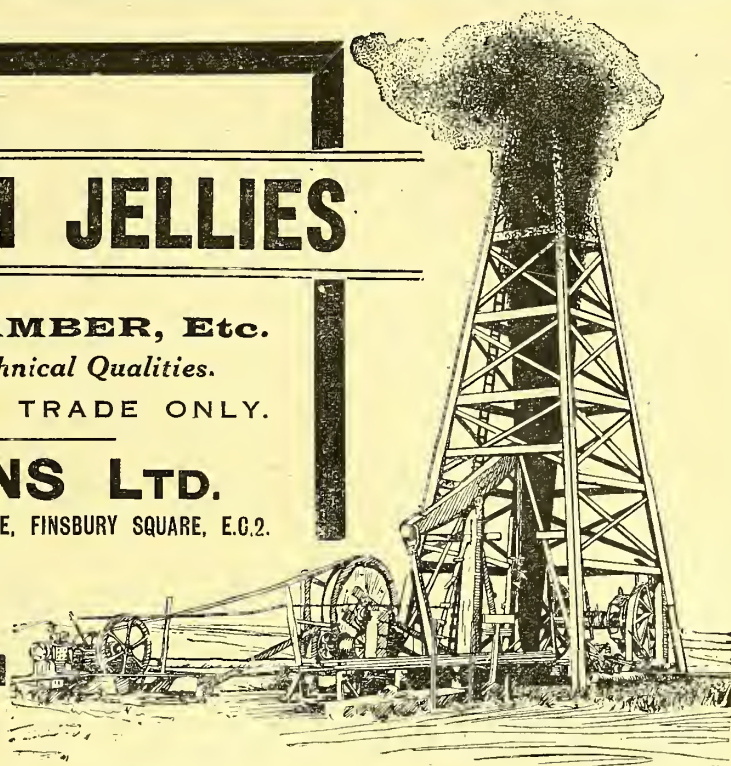
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WHOLESALE TRADE ONLY.

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GENUINE RUSSIAN LIQUID PARAFFIN

ALL GRAVITIES, HIGHEST VISCOSITIES.

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**FINEST
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"JASMINE BRAND" **WHITE OILS**

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FOR MANUFACTURING PURPOSES.

LUBRICATING OILS FOR ALL PURPOSES.

THE PURE RUSSIAN LIQUID PARAFFIN CO., LTD.

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Actual Refiners and Manufacturers at their works near London.

BOTTLES**YORKSHIRE
MAKE**

6 oz. } **15/-** per gross net.
8 oz. }

Other sizes pro-rata.

5 or 6 Gross Assorted Sizes
Carr. paid (100 miles radius).

CASES FREE.

All Sundries at Lowest Prices.

THOS. SWALES

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DRUMMER DYES ARE MOST CONVENIENTLY PACKED in such a way that there is no possibility of a chance breakage spoiling other goods. And you can definitely recommend Drummer to your customers as the finest home dye.

Trade Terms, Showcards, Counter Booklets, etc., from Sole Makers:
WM. EDGE & SONS, LIMITED, BOLTON.

**GLASS
BOTTLES**

Medical Flats, Panels, Vials, Poisons.
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Wholesale and Export.

Samples and Prices on application.

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ESTABLISHED IN 1858.

GLASSWARE

FOR ALL TRADES

Nearly every requisite
for the Chemist and
Druggist kept in
stock.

*Send us your
enquiries.*

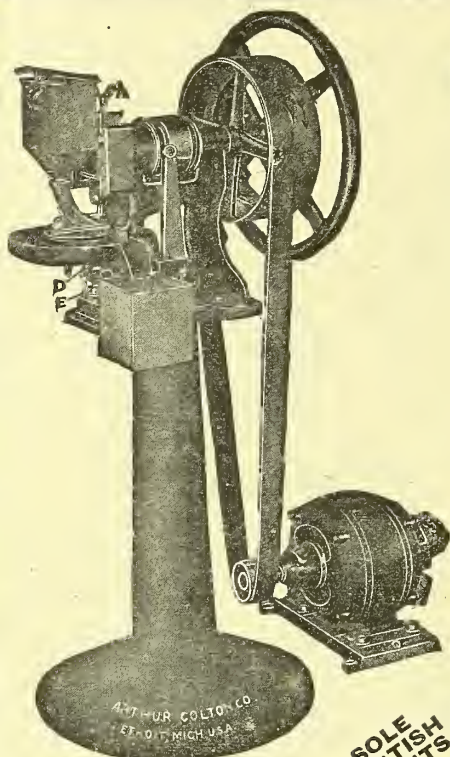
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SOLE
BRITISH
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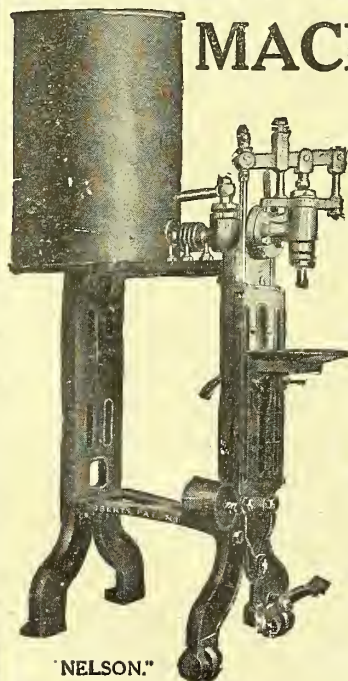
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Pill Machines Tube Fillers
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ROBERTS' ORIGINAL PATENT BOTTLE-FILLING MACHINES



"NELSON."

Don't waste money
on imitations, buy
Roberts' Machines
which actually
Created the Re-
cords for

**CLEANLINESS
SIMPLICITY**

and Rapidity in
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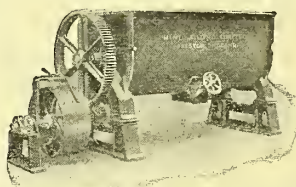
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Our latest patent
"Alpha," price £14,
will fill 10 gross bottles
per hour.

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"ATLAS" PATENT MIXERS & SIFTERS

Combined or Separate Machines.



Absolutely up-
to-date in every
detail, strong,
and most reli-
able machines
on the market.
Various sizes.

BALL MILLS

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ATLAS WORKS, PRESTON.
Telegrams: "Atlas Preston."

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Laboratory Fittings and Equipment.

SPECIALITIES: Beuches, Fume Cupboards,
Still, Drying Ovens, Gas, Water and Steam
Fittings. Electrically Heated Apparatus.

Quotations submitted for the complete
equipment and installation of apparatus
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Commercial Laboratories. *Lists Free.*

Still, as illustrated, for gas and steam
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WEDMORE STREET, HOLLOWAY,
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Trade Mark.

Brand of ENGLISH CHEMICAL GLASSWARE

What a London Scientist says of it—

“ Personally I don't want any better glass than 'Woods' glass, as I find that it does not crack with change in temperature, and is mechanically the strongest glass I have ever used.”—*10th Dec. 1922.*

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“ The 6 litre Conical flasks have been most satisfactory; they withstand high temperatures and strong acids over long periods, and have proved themselves far superior to any Jena glass that we ever used. It is marvellous glassware from a works' Laboratory point of view.”—*19th Sept. 1922.*

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“ We find that the quality of your goods is very much appreciated.”—*28th Sept. 1922.*

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“ The best technical knowledge and practical skill available in the English glass industry are applied in the manufacture of our Chemical Glassware. If a chemist has a bona-fide cause for complaint as to the behaviour of our Chemical Glassware, we undertake to replace the article **free of charge.**

Stocked by the leading Laboratory Furnishers.

WOOD BROTHERS GLASS COMPANY, LTD.

(Established 1828.)

BARNSELY, ENGLAND

FOR
VALUEIN GOOD ATTRACTIVE PRINTED MATTER
LABELS, CARTONS, WRAPPERS.WRITE FOR
SAMPLESWINDOW
BILLSENVELOPES, POCKETS, BAGS,
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TELEGRAMS "WAIDE LEEDS".

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The unsold article is the unnoticed article, for the obvious reason that it is not attractive. It has not that mark of distinction so necessary to catch the eye and so give the heart's desire.

THOMAS WAIDE & SONS' Printing *has* that Mark of Distinction which commands attention.

SEND US YOUR
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Samples to the Colonies 10/6,
the same is allowed off an
Order to the value of £10.

THOMAS WAIDE & SONS LTD
GENERAL, COLOUR & CHEMISTS' PRINTERS
KIRKSTALL ROAD

LEEDS

THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C. 4

MARCH 17, 1923

This Supplement is inserted in every copy of The Chemist & Druggist.

THE CHEMIST AND DRUGGIST SUPPLEMENT REVISED ADVERTISEMENT TARIFF.

Businesses Wanted and for Disposal, Premises to Let, Goods and Shopfittings for Sale, and Agencies—6/- for 50 words; every additional 10 words or less, 6d.

SITUATIONS OPEN—6/- for 40 words; every additional 10 words or less, 6d.

SITUATIONS WANTED—2/- for 18 words; every additional 10 words or less, 6d.

Legal Notices, Tenders, Auctions, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 inch single column).

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EXCHANGE COLUMN (for Retailers, etc.)—Twopence per word, minimum 2/-

Box Number.

In case replies may be addressed to a registered number or nom-de-plume, c/o this Office, at a charge of 1/- extra for each advertisement.

Payment.

Advertisements are prepaid, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

THE CHEMIST AND DRUGGIST, 42 Cannon Street, LONDON, E.C. 4.

Telephone: Central 3617 (3 lines).

Telegrams: "Chemicus, Cannon, London" (2 words).

EARLIER CLOSING FOR PRESS.

Orders for the Supplement must be sent not later than the

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Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

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May be consulted at their Offices on matters of SALE, PURCHASE and VALUATION

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LONDON, S.E.—General Retail Business, with N.H.I. Dispensing; returns £1,400 at full prices; single-fronted shop, fitted and fully stocked; good living accommodation; on lease; held on lease; rent, £28 per annum. Further details on application.

NORTH KENT.—Old-established Business, Retail and Dispensing; gross receipts average between £4,000 and £5,000, at rate less; there is a good residence, with private entrance; to be agreed equitably.

LONDON, N.—Cash Retail Business in busy shopping district; returns, about £50 weekly under management; net profit 10 per cent.; double-fronted shop; large, attractive windows; on lease; at moderate rent; price about £1,500 or valuation entertained.

HANTS. COAST.—General Retail and Dispensing Business, Kodak Agency; returns £25 to £28 weekly, with scope for increase; single-fronted lock-up shop, well fitted in mahogany; fully stocked; held on lease; terms, valuation of stock and fixtures, or cash offer entertained.

LONDON, E.—Family Retail trade, with N.H.I. Dispensing; returns, £1,000 per annum, plus N.H.I.; net profit, 10 per cent.; single-fronted shop; estimated value of stock, £900; on lease; price £1,200.

8.—NORTH OF ENGLAND.—Old-established Business, comprising light Retail, Photographic, and Optical, also Wine Licence; held by present vendor upwards of a quarter of a century; returns average £3,000 per annum; gross profit, one-third; terms, £1,550 for the Business, which is about the value of stock and fixtures, and £1,850 for the property.

9.—HOME COUNTY (Large Town).—General Retail, Dispensing and Prescribing Business; very old established; returns, last year, £3,255, at usual prices; double-fronted shop, heavily stocked; new lease will be granted at moderate rental; price to be arranged.

10.—GREAT WESTERN MAIN LINE.—Very old-established Business, situate in the centre of a thriving commercial town; gross receipts average £6,500, which can be largely augmented under young, energetic management; price required for the Business, to include freehold premises, £15,500.

11.—KENT COAST.—Retail Dispensing and Photographic Business; returns, about £2,000 per annum; net profit approximately 25 per cent.; scope for increase; living accommodation; moderate rental; held on lease; price £1,100, or near offer.

12.—DEVON.—Cash Retail Business; returns, about £1,300 per annum; scope for extension; moderate rental; living accommodation; price to be agreed equitably.

13.—KENT (HEALTH RESORT).—High-class Retail, with Optical Business, recently established, and offers scope to do a large turnover; double-fronted shop; finest stock and fixtures in the town; good living accommodation, bathroom, garden; 21 years' lease. Further details on application.

14.—SOUTH-EAST COAST.—General Retail Business, very much neglected; in the hands of an energetic man the turnover could undoubtedly be increased; present rate, £15 weekly; lock-up shop; held on lease at rental of £20 per year; price to be arranged.

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3.—YORKSHIRE.—Cash Retail Business, in prominent corner position; returns, £1,450; neglected through ill-health; lock-up shop, fine windows; stock worth over £450; price for quick sale, £780.

4.—SURREY.—Good middle-class Retail Business, with Kodak Agency, in growing district; returns, over £1,500, all ready money; no immediate opposition; moderate rent; on lease; price £1,150; personally recommended.

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7.—LONDON, E.—Cash Drug Store, with Kodak Agency; splendid opening for N.H.I.; returns, over £1,700; plenty of scope; good house; low rent; on lease; price £900.

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4.—LONDON, N.—Good Retail Business, taking £1,500 per annum; well-stocked and fitted; little opposition. Two good living rooms; 7 years' lease, with rent, £52 per annum; inclusive price, £950.

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WALES.—Agent wanted, on liberal commission only, by established Soap and Perfumery Manufacturers; applicants considered with knowledge of the trade and live connection amongst Chemists and Stores. Give full particulars previous experience, age, etc., to 21/662, Office of this Paper.

AGENTS required for sale of an established and popular Proprietary Article to Retail Chemists in N., E. and S. Counties; must be men with a live connection; liberal commission. State area covered, number and class of goods carried and commission required. 14/12, Office of this Paper.

AGENTS wanted, with live connections amongst Chemists throughout England, Scotland and Wales, for the sale of packed Ammonia, Olive Oil, etc. State references, commission expected, other agencies held, territory covered, etc. 13/18, Office of this Paper.

AGENTS required to sell good Proprietary Articles. Chemist own name specialties; only those having a connection with chemists in Liverpool and district need apply. 18/19, Office of this Paper.

COMMISSION Agency offered good man for Wales, and Scotland for Ireland; only those with experience of Drug Trade and undeniable references need apply; state ground covered and liberal terms. 9/14, Office of this Paper.

EXPERIENCED Representatives, with established connections amongst Wholesale Chemists, for Pharmaceutical Chemicals and Olive Oil. 21/676, Office of this Paper.

FREE Shares to Retailers.—Sole Agencies have now been allotted in respect of the three distinctive Proprietary Trade Articles with offer of Free Shares, with the exception of following: Yorks (W. and E. Ridings), Westmorland, Cumberland, Lancs, Shrops., Hereford, Glos., Oxford, Bucks, Berks, London, Wilts, Dorset, Somerset, Devon, Cornwall, Wales and Northern Ireland. Only those with first-class connections need apply for these, stating, in strict confidence, ground covered, goods carried, number of accounts, and commission expected, to "Y. A.," 16/12, Office of this Paper.

LEADING Spanish Firm of Exporters of Medicinal Culinary Herbs requires Agent for the sale of its products in the United Kingdom. Address letters to Mr. A. Sarga Apartado 144, Barcelona, Spain.

LONDON Importers wish to negotiate with free lance Commission Agent with connection among Wholesale Druggists etc. 21/678, Office of this Paper.

SCOTTISH Firm of Manufacturing Chemists, with good connection among Wholesale Druggists, and Druggist Hairdressers' Sundriesmen, etc., desire Sole Agency for Scotland and North of England for lines suitable for above trade Sundries or otherwise. 18/28, Office of this Paper.

SOUTH Coast Agency wanted; own car; facilities for holding stocks and distributing. "C. O. M.," 16/23, Office of this Paper.

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RADFORD.—Cash Drug Stores; smart appearance, inside and out; attractive window; mahogany fittings in best position; electric light; lock-up shop, with stock room above cellar, situated on best main road from centre; returns £60; rent £40; lease; good opening for qualified man to do N.H.I.; terms, valuation of stock and fixtures, about £550, or offer entertained. Marsden, Valuer, 44 Sholebroke View, ds.

ERBYSHIRE.—Old-established Business, industrial and agricultural district, small town; good house and well-fitted shop; Wine Licence, Kodak and Rexall Agencies; turnover, £1,000 to £4,000; price £100 and valuation of stock and fixtures, about £1,600. 16/1, Office of this Paper.

LAMORGANSHIRE.—Beautifully fitted large double-fronted Shop, in colliery district; splendid position in one of the shopping centres in Glamorganshire, population about 1000; Kodak agency, wine licence; good opening for Optics; good house, with side entrance. Further particulars from 11, Office of this Paper.

LENT.—Good-class light Retail with large Photo. connection and good sale of own specialities; returns, £2,000 cash; N.H.I.; good house attached, electric light throughout; price, will accept £1,200. Buyers enclosing references can have interview. 21/655, Office of this Paper.

LONDON, S.W.—Retail Store, thickly-populated district; Kodak Agency; newly equipped; returns average £2,000, all cash; only Chemist in neighbourhood; nearest opposition ¼ mile; stock, all new; low inclusive rent; lease and option; lock-up shop at present; N.H.I.; price £1,550; only bona-fide enquiries answered. Apply, 21/671, Office of this Paper.

LONDON, W.—Drug Stores, in good-class neighbourhood; fine position; large double-fronted shop; returns about £650; opening N.H.I.; electric light; or lease; house, 5 rooms, front and garden; rent £75; stock about £250; price for cash sale £450. Write 17/17, Office of this Paper.

ISLANDS.—Industrial town. Compact, unopposed, Lock-up shop in thickly populated district; 6½ years' lease at 11s. inclusive; electric light; well stocked; returns £18 weekly good profits; capable of doing more under Qualified man; opening for N.H.I.; £480 cash.—Apply, 17/16, Office of this Paper.

MIDDLESEX.—On the G.W.R. line.—Middle and working district; bold corner shop; best position; returns last year £270; gross profit £1,200; lease 21 years; nice house, decorated; Kodak agency; N.H.I. average 700 month; price, lease, goodwill, £1,800; stock at valuation; valued on January 1, £770. Apply 18/1, Office of this Paper.

NEAR MANCHESTER.—An old-established Business in main street; good Photographic (Kodak Agency) and Optical; valuable Wine Licence; returns £2,000; held on lease; good accommodation; full particulars to cash buyers; good son for selling. 16/11, Office of this Paper.

SOUTH YORKSHIRE.—Cash Retail Business; good N.H.I.; returns £2,000; living accommodation; electric light all round; low rent; held on lease; price £1,100. Write 17/26, Office of this Paper.

SOUTH WALES.—A splendid opportunity occurs to acquire a really sound Business; good turnover; could easily be handled by energetic man; nicely fitted and well stocked; finest position in large, important town; immediate possession; Kodak agency and Wine Licence; small living accommodation; disinterested owing to ill-health. Davies, Chemist, Aberdare.

WEST COUNTRY.—Large town. General Retail Business in main thoroughfare; returns average £20-£25 weekly; profits about 40 per cent. gross; house attached; low rent; well stocked and fitted; all at £850; sound reasons for disposal. Apply 19/16, Office of this Paper.

WILTSHIRE.—Good-class Chemist's Business, on main road; double-fronted shop; good living accommodation, and fitted with electric light; weekly takings £25; rent £40; no near opposition; price, including goodwill, stock and fixtures at valuation, about £800 to £1,000; stock could be reduced if necessary. 16, Office of this Paper.

WILTSHIRE.—Old-established Mixed Chemist Business in centre large, populated mining and farming district (Monmouthshire), railway station and Doctor's Consulting Rooms and Dispensary; only scope for young energetic man or company; stock, fixtures, and goodwill; reserve price, £800; offers wanted; large house and shop; possession, with lease, if required; inspection appointment only; owner retiring. Reply, 281/10, Office of this Paper. (Registered Chemist only.)

DRUG STORES. London, main road, near City; large corner Shop (lock-up) and basement; open six months; now returns over £20 weekly; thickly populated district; no near opposition; trial if necessary to prove opportunities; N.H.I. wanted; fully stocked; splendid opportunity for energetic Qualified man; price £800, cash buyers only. Reply 17/320, Office of this Paper.

PROGRESSIVE, healthy, seaport, East Coast.—Magnificent Pharmacy with two large attractive windows; 8-roomed house, conservatory, garage and garden; rare opportunity to buy a genuine old-established business; specialities pay the rent; illness cause of disposal; price £3,000. Further details on receipt of references. Chas. C. Marsden, Valuer, "Highfield," Sholebroke View, Leeds.

VACANT possession, going concern, Photographic Chemist; last 11 months' takings, £1,878, 25 per cent. nett profit; fittings and apparatus, £350; stock, £300; quick sale for cash, £1,100; rent £52; lease 3 years, with option of buying; house accommodation; Kodak and Ucal Agencies (4,000 D. and P. orders last year). 17/5, Office of this Paper.

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GENUINE Chemist's Business in healthy locality, with living accommodation; turnover about £30 per week, with good profits; must bear strictest investigation and be in good position; full particulars in first instance; no agents. "Chemist," "Glen-Helen," Holderness Road, Sutton-Ings, Hull.

WANTED, neglected Business with scope for increase, or advertiser would pay £5 for information (if acted on) of a shop to let with living accommodation in a district with an opening for a Chemist. "Statim," 16/6, Office of this Paper.

WANTED, immediately, or in near future, good-class Cash Business with convenient small house and not less than 7 years' lease unexpired; cash up to £1,500 for sound concern at reasonable price. "Statim," 50c, South Street, Dorking.

WANTED (London), genuine Chemist's Business; turnover about £5,000; full particulars, treated in confidence; cash available. P.C.B. 18/38, Office of this Paper.

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11 GROSS tablets Peerless Erasmic Soap (3 tab. boxes), 8 dozen bottles (144) Bland's Pills (gel. coated), 5 dozen boxes Palmer's Venus Night Lights, 8 hours; 2 dozen boxes Price's Child's Night Lights, 8 hours; 1½ dozen 1s. 3d. Lestrol; 8 bottles 3s. Lestrol; 3 dozen spare O.F. Feeders; 2 gross Oatmeal Shampoos (2 kinds). What offers, whole or part? Wilkinson, Chemist, Rotherham.

3 DOZEN long white whalebone ebony Ladies' Hair Brushes; 2 not soiled; two qualities, 42s. and 45s.; approval; worth double; sample brush 4s. S. W. Vincent & Co., Chemists, Addiscombe, Surrey.

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ADVERTISER, with factory, machinery, excellent connection, good selling lines, and some capital, seeks Partner, preferably qualified Chemist, to join him and invest £2,000; good salary; one-third share profits; capital secured. "L," c/o Thorpe & Pearson, Corporate Accountants, 5 John Street, Bedford Row, W.C.1.

CHEMIST can offer permanent position as Dispenser to either lady or young gentleman able to invest capital at good interest in old-established business, which is being rapidly extended in the Wholesale in the manufacture of Proprietary lines. Reply, stating available capital and salary required, to 79 Whitehall Road, West Bromwich.

PARTNERSHIP offered in lock-up Retail Druggist, Kent, to gentleman or lady, experienced in Dispensing, Counter and Window-dressing; no immediate opposition; rent low; half share £135. Please state experience, age and when disengaged, also send copy of two references and photo, to "Druggist," 30 Star Hill, Rochester.

PARTNERSHIP required in a sound Retail Business with scope for Window-dressing and Photography by young, energetic and experienced qualified man; Eastern Counties or London preferred; capital available about £1,000. Write 16/270, Office of this Paper.

SITUATIONS OPEN.**[HOME.]****RETAIL.**

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BIRMINGHAM (near).—A vacancy occurs in a high-class Pharmacy for a Senior Qualified Assistant; applicants should have had very good experience and be able to offer undeniable references; this is a post offering scope for a man of initiative and ability; age not under 28. Please state full particulars of experience, salary required, etc., to 18/39, Office of this Paper.

EAST LANCs.—Branch Manager, lady or gentleman, required, accustomed to N.H.I. Dispensing and Cash Retail trade; must be accurate and steady, and have knowledge of Photography. Reply by letter, with full particulars, age, experience, and salary required, permanency. Thornber, Accrington.

FOLKESTONE.—Unqualified male Assistant to assist with Counter and Dispensing; good Window-dresser, and must have knowledge of Photography. Apply with full particulars, stating age and salary required, Hook, 101 Dover Road, Folkestone.

ILFRACOMBE.—Indoor Assistant required (single), 26 to 30; must be an accurate Dispenser and good Salesman, efficient in Photographic work and Window-dressing, and capable of taking charge. Apply with full particulars in first letter of age, height and salary required. Applications not answered in 4 days declined. W. J. Moon, 2 High Street, Ilfracombe.

LANCASHIRE town; pleasant situation; excellent business; Manager wanted for large shop; live in, if satisfactory gentleman, and necessary. Write full particulars, stating salary, etc., 12/2, Office of this Paper.

LEEDS.—Qualified Manager wanted for medium-class business with N.H.I.; good berth for capable and energetic in vacant house or premises if desired. Apply, stating full particulars as to age, experience, salary, etc., Firth, 165 Debury Road, Leeds.

LIVERPOOL.—Qualified, age 26 to 35; good Window-dresser; good knowledge of Photography, quick Dispenser, N.H.I. reliable Counterman. Send copy of references and salary expected. Applicants not answered in four days respectfully declined. Letters only. Tomlinson, 86 Everton Road, Liverpool.

LONDON, E.—Qualified Assistant with knowledge of Photography; tactful Salesman. W. Shadforth, Ph.C., 63 Grosvenor Road, Bow, London, E.5.

LONDON, N.—Assistant required, outdoors; no Sunday duty; good Salesman, Window-dresser, accurate Dispenser; knowledge of Photographic business; qualified preferred, but essential. State age, experience, salary asked. Charles Andrew, Ph.C., 18 High Road, East Finchley.

LONDON, N.—Wanted, a good all-round unqualified Lady Assistant, about 25-30 years of age; a good Counter hand and capable of dressing a Window; a knowledge of Photography would be an advantage. State age, height, experience, salary required. 17/12, Office of this Paper.

LONDON, S.E.—Junior Assistant required, outdoors; two ke accurate Dispenser; advertiser is taking up Photographic Goods, so applicant must be interested in, and capable of attending to, same; working-class district; applications answered in 7 days respectfully declined. Salary required: usual particulars to 17/7, Office of this Paper.

LONDON, S.W.—Reliable, industrious Assistant, over 21; all-round Retail, Photographic, and Dispensing; good Window-dressing essential; permanency. Write, stating age, experience, salary required, etc., to S. V. Brook, M.P.S., 1 Lavender Hill, S.W.11.

MANCHESTER.—Qualified Locum wanted, young local man preferred, from April 3 to 14 inclusive; no Sunday duty Wednesday half day. Apply by letter, stating age and terms to "Locum," Tinker, Chemist, The Heights, Manchester.

MANCHESTER.—Capable Junior for a brisk good-class Retail and Dispensing Business. Apply, stating age, salary required, with full particulars of experience, to J. S. Bree, Pharmaceutical Chemist, Rusholme, Manchester.

MANCHESTER.—Experienced Photographic Assistant to take charge Photographic Department; good Window-dresser; essential; permanency to right man. State full particulars, experience, and salary required; applications not answered in days courteously declined. Photo. Dept., Taylor's Drug Company, Ltd., Market Street, Manchester.

MARGATE.—Wanted, April 30, married Assistant; good Counterman and Dispenser; furnished accommodation provided. Holmes, 110 High Street, Margate.

SOUTH WALES, Rhondda Valley.—Qualified Manager required, permanency, with good interest in the profits offered; steady and reliable man; good house attached; married man; young man likely to be married in the near future preferred. 16/25, Office of this Paper.

WALTHAMSTOW.—Wanted, immediately, Junior Assistant (single), outdoors; must be active, a good Salesman, Window-dresser, and Dispenser; knowledge of Photography essential; must be able to take charge when necessary. Apply by letter, stating references and salary required, which must be moderate, to "Chemist," 5 Tavistock Road, Harlesden.

YORKSHIRE.—Qualified Manager required for good-class Pharmacy; thorough business abilities; knowledge of Photography; excellent references required; live out. Send full particulars to 17/27, Office of this Paper.

A CAPABLE gentlemanly Assistant required for old-established West-End Dispensing business; London experience in up-to-date display methods an advantage; permanency offered; qualified single applicant. Apply, with full particulars, salary, etc., to 21/682, Office of this Paper.

Returning Photos, &c.

Advertisers in this section who receive portraits and copies of testimonials from applicants, with a stamped addressed envelope for reply, are reminded that the undue retention of these often means a hardship to the sender. All personal documents should be returned as promptly as possible after perusal.

ASSISTANT, unqualified, accustomed to quick Cash Retail in a busy City Pharmacy; energetic and trustworthy; competent Window-dresser, knowledge of Photography; state salary required. Bryan & Spedding, Ltd., Chemists, 48 Deansgate, Manchester.

ASSISTANT required at once for good-class business (South); good Salesman and Window-dresser, with working knowledge of Photography; state fullest particulars, with references and salary required; good opening for right man with energy and initiative. Apply 16/9, Office of this Paper.

ASSISTANT required for London area, age not over 35; must be a smart Salesman, Window-dresser, and accurate Dispenser, with knowledge of Photography. Apply by letter, giving particulars, to 21/683, Office of this Paper.

APABLE Lady Dispenser required for Richmond and West Ealing district; must have Hall Certificate. Apply by letter, giving full particulars of training, experience, age, and salary required, to 21/684, Office of this Paper.

EVENINGS.—Wanted, an Assistant (male), used to Retail, for Thursday and Friday evenings and half-day Saturday; might suit student. Apply Dunn, Chemist, 218 Kentish Town Road, N.W.

HOLIDAY Relief.—Wanted, Manchester district, for middle-class business, qualified Pharmacist for a fortnight, commencing Thursday, March 29. State terms, etc. (outdoor), to 1/7, Office of this Paper.

J. & H. A. AVERILL, Chemists, Stafford, have a vacancy for a capable Junior; one just out of apprenticeship might suit. Full particulars in first letter.

JUNIOR Assistant, qualified, wanted, for Counter work principally, and to assist in the Dispensary; must have had at least class experience. Please state salary required, outdoors, with references, and enclose photograph. Ralph Cuthbert, Ltd., Huddersfield.

JUNIOR Assistant for light retail and dispensing business; state age, experience and salary required; no envelopes or photographs in first letter; applications not answered in four days, respectfully declined. Martyn's Stores, Ltd., Chemists, Liverpool.

LADY Dispenser required, experienced, a few evening hours once or twice a week, for Toilet Preparations; West-End. Apply, giving particulars and remuneration required, "M. J.," 11/B. 17/32, Office of this Paper.

LADY Assistant; experience in Dispensing and Counter; short hours, no Sunday duty. State age and salary to Mason, Chemist, Whitby, Yorks.

LEWIS & BURROWS have vacancies for three smart young unqualified Assistants (male). Applicants will please give particulars of previous experience. Apply 146 Holborn Bars.

LOCUM required in S.E. London, from March 27, for about 3 weeks; must be legally qualified (Apothecaries' Hall less); lady preferred. Full particulars in first letter, stating salary (outdoors), 18/12, Office of this Paper.

WANTED, in Midland town for growing business, young qualified Manager. State age, height, experience, and salary required, with references, to "C. H. S.," 16/24, Office of this Paper.

WANTED, at once, qualified Assistant; must be thoroughly competent and reliable. Write, stating age, experience, long last situation, salary expected, etc., to Dales, Chemist, Stairfoot, Barnsley.

WHOLESALE.

LONDON, E.C.—Wanted, Junior Assistant with Office experience (typewriter); some knowledge of Chemical and Fume trades. Write age, experience, salary required, P.C.B. 31, Office of this Paper.

REPRESENTATIVE with sound connection required by Sundries House to represent them in Lancashire, Cheshire, North Wales and Potteries; salary, commission and expenses. Apply, giving full particulars, which will be treated in confidence, to 15/19, Office of this Paper.

NORTHERN Sundries House require experienced man for warehouse; must be good Stock-keeper, capable of getting things up, and a sound knowledge of the trade. Replies, giving particulars, salary required, to 15/190, Office of this Paper.

ADVERTISING.—Young man with knowledge of Pharmaceutical trade and some advertising experience required copy department of London firm. Particulars of education, experience, and salary to 21/675, Office of this Paper.

GIRL required with good experience in capping, labelling, etc., high-class toilet preparations. Write, giving full particulars, age, experience, and wages required in first letter. 15/15, Office of this Paper.

ENERGETIC Salesmen calling on Perfumers and Soap Manufacturers, etc., to sell special Synthetics; men with good connection given very liberal commission; good side line. Apply 21/681, Office of this Paper.

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We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

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